Notice for Users in the USA

FCC Statement

WARNING - FCC Regulations state that any unauthorized changes or modifications to this equipment not expressly approved by the manufacturer could void the user's authority to operate this equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the distance between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

A shielded I/F cable is required to insure compliance with FCC regulation for Class B computing equipment.

* As an Energy Star Partner, SHARP has determined that this product meets the Energy Star guidelines for energy efficiency.

Declaration of Conformity

SHARP PERSONAL COMPUTER, PC-9800T
This device complies with part 15 of the FCC rules. Operation is subject to the following conditions:(1)this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Responsible Party: SHARP ELECTRONICS CORPORATION
Sharp Plaza, Mahwah, New Jersey 07430
TEL: 1-800-BE-SHARP

About the Modem

This equipment PC-9800T complies with Part 68 of FCC rules. On the bottom of this equipment is a label that contains, among other information, the FCC registration number and ringer equivalence number (REN) for this equipment. If requested, this information must be provided to the telephone company.

The modem jack of this equipment complies with Sub-part F of Part 68 of FCC rules.

The REN is used to determine the quantity of devices which may be connected to the telephone line. Excessive RENs on the telephone line may result in the devices not ringing in response to an incoming call. In most, but not all areas, the sum of the RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to the line, as determined by the total RENs contact the telephone company to determine the maximum REN for the calling areas.

If the terminal equipment causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But if advance notice isn't practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it necessary.

The telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the operation of the equipment. If this happens, the telephone company will provide advance notice in order for you to make the necessary modifications in order to maintain uninterrupted service.

If trouble is experienced with this equipment, please contact Sharp Electronics Corp. for repair and (or) warranty information (Refer to the end of this section). If the trouble is causing harm to the telephone network, the telephone company may request you remove the equipment from the network until the problem is resolved.

The equipment cannot be used on public coin service provided by the telephone company. Connection to Party Line Service is subject to state tariffs. (Contact the state public utility commission, public service commission or corporation commission for information.)

The Telephone Consumer Protection Act of 1991 makes it unlawful for any person to use a computer or other electronic device, including fax machines, to send any message unless such message clearly contains in a margin at the top or bottom of each transmitted page or on the first page of the transmission, the date and time it is sent and an identification of the business or other entity, or other individual sending the message and the telephone number of the sending machine or such business, other entity, or individual. (The telephone number provided may not be a 900 number or any other number for which charges exceed local or long-distance transmission charges.) To program this information, refer to the manual of the communication software.

CAUTION about CD-ROM Drive

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

CAUTION about Battery

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.

Copyright

Product Information and Customer Assistance

For Product Information and Customer Assistance:

Call: 1-800-BE-SHARP (237-4277)

Sharp Electronics Corp.
Sharp Plaza

Mahwah, NJ 07430

Notice for Users in Canada

About Modem

The REN is 0.3.

The Industry Canada label identifies certified equipment.
This certification means that the equipment meet certain telecommunications network protective, operational and safety requirements. The department does not guarantee the equipment will operate to the user's satisfaction.
Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company.
The equipment must also be installed using an acceptable method of connection. In some cases, the company's inside wiring associated with a single line individual service may be extended by means of a certified connector assembly (telephone extension cord). The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be made by an authorized Canadian maintenance facility designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

CAUTION Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.

"The **Load Number** (LN) assigned to each terminal device denotes the percentage of the total load to be connected to a telephone loop which is used by the device. To prevent overloading, the termination on a loop may consist of any combination of devise subject only to the requirement that the total of the Load Numbers of all the devices does not exceed 100."

Product Information and Customer Assistance

For Product Information and Customer Assistance:

Call: 1-905-890-2100

Sharp Electronics of Canada Ltd.
335 Britannia Road East,
Mississauga, Ontario, L4Z 1W9
Canada

Notice for Users in Australia

Service Inquiries

Please contact your dealer for service if required or contact Sharp Corporation of Australia on 1-800-807820 (free call) for referral to your nearest Sharp authorised Service Centre. Details can be found on the warranty card inserted with the documentation.

CAUTION

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Do not dispose of large quantities of used Lithium batteries at the same time.

Copyright

Notice for Users in the UK

IMPORTANT

The wires in this mains lead are coloured in accordance with the following code:

BLUE: Neutral
BROWN: Live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows.
The wire which is coloured **BLUE** must be connected to the terminal which is marked with the letter **N** or coloured black.
The wire which is coloured **BROWN** must be connected to the terminal which is marked with the letter **L** or coloured red.
This apparatus must be protected by a 3A fuse in the mains plug or

This apparatus is approved under approval number NS/G 1234/J/100003 for indirect connection to the public telecommunication system in the United Kingdom.

Service Inquiries

For customer and service support, please refer to the documentation included with your notebook.

Copyright

Recording and playback of any material may require consent, which SHARP is unable to give. Please refer particularly to the provisions of the Copyright Act 1956, the Dramatic and Musical Performers Protection Act 1958, the Performers Protection Acts 1963 and 1972 and to any subsequent statutory enactments and orders.

Notice for Users in Europe

This equipment complies with the requirements of Directives 89/336/EEC and 73/23/EEC as amended by 93/68/EEC.

Dieses Gerät entspricht den Anforderungen der EG-Richtlinien 89/336/EWG und 73/23/EWG mit Änderung 93/68/EWG.

Ce matériel répond aux exigences contenues dans les directives 89/336/CEE et 73/23/CEE modifiées par la directive 93/68/CEE.

Dit apparaat voldoet aan de eisen van de richtlijnen 89/336/EEG en 73/23/EEG, gewijzigd door 93/68/EEG.

Dette udstyr overholder kravene i direktiv nr. 89/336/EEC og 73/23/EEC med tillæg nr. 93/68/EEC.

Quest' apparecchio è conforme ai requisiti delle direttive 89/336/EEC e 73/23/EEC, come emendata dalla direttiva 93/68/EEC.

Η εγκατασταση αυτη ανταποκρινεται στιζ απαιτησειζ των οδηγιων τηζ Ευρωπαϊκηζ Ενωσηζ 89/336/ΕΟΚ κατ 73/23/ΕΟΚ, όπωζ οι κανονισμοι αυτοι συμπληρωθηκαν από την οδηγια 93/68/ΕΟΚ.

Este equipamento obedece às exigências das directivas 89/336/CEE e 73/23/CEE, na sua versão corrigida pela directiva 93/68/CEE.

Este aparato satisface las exigencias de las Directivas 89/336/CEE y 73/23/CEE, modificadas por medio de la 93/68/CEE.

Denna utrustning uppfyller kraven enligt riktlinjerna 89/336/EEC och 73/23/EEC så som komplette ras av 93/68/EEC.

Dette produktet oppfyller betingelsene i direktivene 89/336/EEC og 73/23/EEC i endringen 93/68/EEC.

Tämä laite täyttää direktiivien 89/336/EEC ja 73/23/EEC vaatimukset, joita on muutettu direktiivillä 93/68/EEC.

CAUTION:

TO PREVENT ELECTRICAL SHOCK, DISCONNECT THE AC CORD AND THE BATTERY BEFORE SERVICING.

CAUTION:

FOR A COMPLETE ELECTRICAL DISCONNECTION, PULL OUT THE MAIN PLUG AND THE BATTERY.

VORSICHT:

UM DIE STROMZUFUHR VOLLSTÄNDIG ZU UNTERBRECHEN, DEN NETZSTECKER HERAUSZIEHEN UND DIE BATTERIE ÈNTFERNEN.

ATTENTION:

POUR UN ARRET TOTAL DU SYSTEME, DECONNECTEZ LA PRISE DE COURANT SECTEUR.

VARNING:

FÖR TOTAL ELEKTRISK URKOPPLING, KOPPLA UR KONTAKTEN OCH TA UR BATTERIET.

PRECAUCION:

PARA UNA COMPLETA DESCONEXION ELECTRICA DESENCHUFE LA CLAVIJA DE LA RED Y LA BATERIA.

Safety Precautions

General

- Follow all cautions and instructions which may be marked on the notebook.
- Except as described elsewhere in this manual, refer all servicing to qualified personnel. Immediately shut off the notebook and refer for servicing under the following conditions:
  - when the power cord or plug is damaged or frayed
  - if liquid has been spilled on the notebook
  - if the notebook has been dropped or the cabinet has been damaged

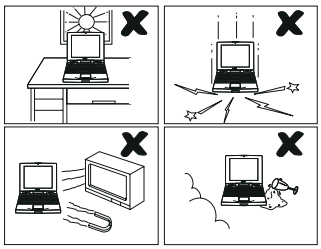
Location

- Do not expose the notebook to direct sunlight.
- Try to avoid dusty environments.
- Keep the notebook away from any magnetic devices and TVs.
- Keep the notebook away from excessive humidity or fluids such as rain, snow, water spray, juice, coffee, steam, etc.
- Do not move the notebook from a cold place to a warm place. A temperature difference of more than 10°C (18°F) will cause condensation inside the unit, which may damage the data.
- Do not block or cover slots or openings on the cabinet to protect the notebook from over heating.
- Do not smoke near your notebook.

Usage

- Never push any objects of any kind into cabinet openings. They may touch dangerous voltage points or short parts that could result in fire or electrical shock.
- Turn off the notebook before installing or removing a peripheral device.

- Check the AC power cord and power connectors periodically for damage. Replace the power cord immediately if damage is found.
- Never subject your notebook to sudden shocks or extreme vibration.
- Do not drop the notebook nor hit it with other equipment.
- Do not scratch the surface of the LCD screen.
- Turn off the notebook and disconnect the AC cord before cleaning.



Battery Pack Precautions

Handling

- Never put the battery pack in a fire, as it could explode and cause injury.
- Do not attempt to open or alter the battery pack.
- Do not place the battery where it might get hotter than 60°C (140°F).
- Do not allow metal objects such as jewelry to short across the battery terminals, as it could heat up and explode.
- The battery includes a circuit breaker to help protect against short circuiting. However, covering or pressing this breaker switch hard could cause the battery to malfunction.
- Do not allow liquids to come in contact with the battery pack.
- Avoid dropping the pack or other violent shock.
- Do not solder to the battery terminals.

Charging

- Charge the battery pack only with the AC adapter included with your notebook.

Discharging

- Do not use the battery pack for any purpose other than powering the notebook computer.

Storage

- Store the battery pack in a cool and dry place. Never allow the temperature to exceed 60°C (140°F) during storage.
- Recharge the battery pack after storage, before use.

Lithium Battery Precautions

Caution

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the equipment manufacturer. Discard used batteries according to manufacturer's instructions.

Attention

Il y a danger d'explosion s'il y a remplacement incorrect de la batterie. Remplacer uniquement avec une batterie du même type ou d'un type équivalent recommandé par le constructeur. Mettre au rebut les batteries usagées conformément aux instructions du fabricant.

Vorsicht

Explosionsgefahr bei unsachgemäßem Austausch der Batterie. Ersatz nur durch denselben oder einen vom Hersteller empfohlenen gleichwertigen Typ. Entsorgung gebrauchter Batterien nach Angaben des Herstellers.

Modem Precautions

- Never install telephone wiring during a lightning storm.

- Never install telephone jacks in wet locations unless the jack is specifically designed for wet locations.
- Never touch uninsulated telephone wires or terminals unless the telephone line has been disconnected at the network interface.
- Use caution when installing or modifying telephone lines.
- Avoid using the telephone function during a lightning storm. There may be a remote risk of electric shock from lightning.
- Do not use the telephone function to report a gas leak in the vicinity of the leak.

About This Manual

Notice

Information in this manual is subject to change without notice and does not represent a commitment on the part of SHARP Corporation.

SHARP Corporation shall not be liable for technical or editorial errors or omissions contained herein; nor for incidental or consequential damages resulting from the furnishing, performance, or use of this material.

SHARP strongly recommends that separate permanent written records be kept of all important data. Data may be lost or altered in virtually any electronic memory product under certain circumstances. Therefore, SHARP assumes no responsibility for data lost or otherwise rendered unusable whether as a result of improper use, repairs, defects, battery replacement, use after the specified battery life has expired, or any other causes.

SHARP assumes no responsibility directly or indirectly, for financial losses or claims from third persons resulting from the use of this product and any of its functions, such as stolen credit card numbers, the loss of or alteration of stored data, etc.

Edition

1st Edition, May 1997.

Copyright

Trademarks

Recording Important Information

For future reference, please record the following information in the spaces provided below.

Model Number:	
Serial Number:	
BIOS Version Number:	
Date of purchase:	
Dealer's Name:	
Place of purchase:	
Password:	

The serial number is printed on a sticker located on the bottom of the notebook. You will see the BIOS Version number on the middle line of the LCD screen when you turn on the notebook.

Manual Conventions

This manual uses a set of style conventions described below.

Notes and Cautions are italicized with icons:

A note icon informs you of a special technique or information that may help you perform a task or better understand a process.

A caution icon alerts you to something that may cause problems or damage to hardware, software or data.

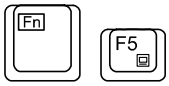
Key Labels on the Keyboard, when referred to in the instructions, are shown in boldface:

Press **Enter** to continue.

When more than one key are pressed simultaneously, the key labels are separated by a plus (+) sign:

Restart your notebook by pressing **Ctrl**+**Alt**+**Delete**.

When necessary, important key combinations are shown in graphics:



Sample Entries are shown in upper cases of different typeface. In the following case, press the Enter key after you type the command:

```
C:\>FORMAT A: Enter
```

Words/Texts on Screen, such as window titles or possible parameters, are italicized:

Double-click this icon to display the *Power Properties* window.
Set the item to *Enabled*.

Screens reproduced in this manual may differ slightly from the screens you see on your notebook.

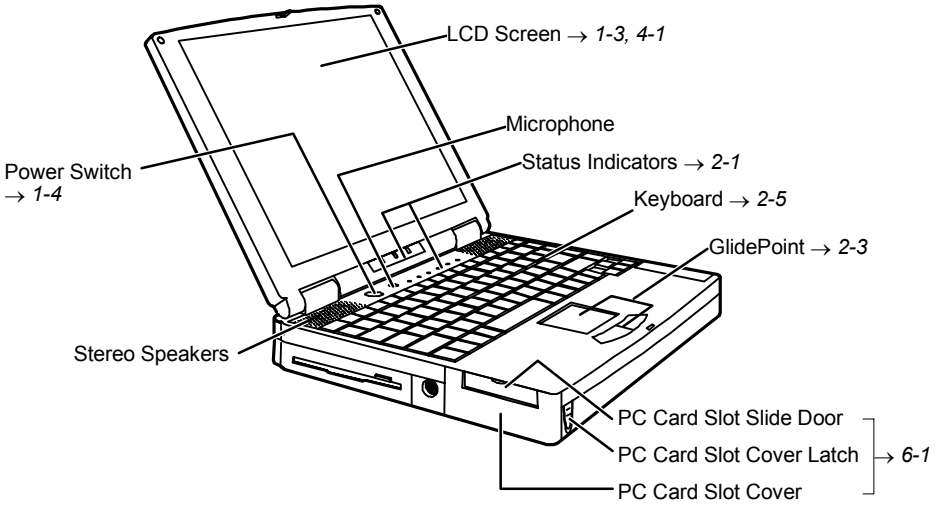
Section Titles in other parts of this manual are italicized:

Refer to *Infrared Communication* section in Chapter 5.

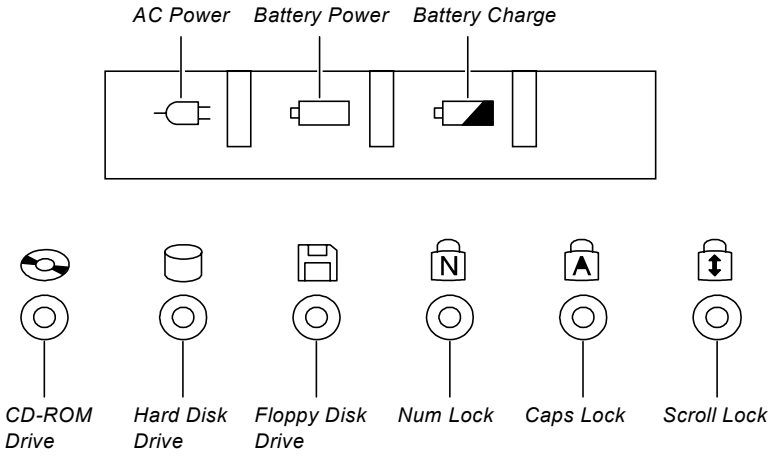
Appearance of the Notebook

Each number after the arrow indicates the page referring to the part.

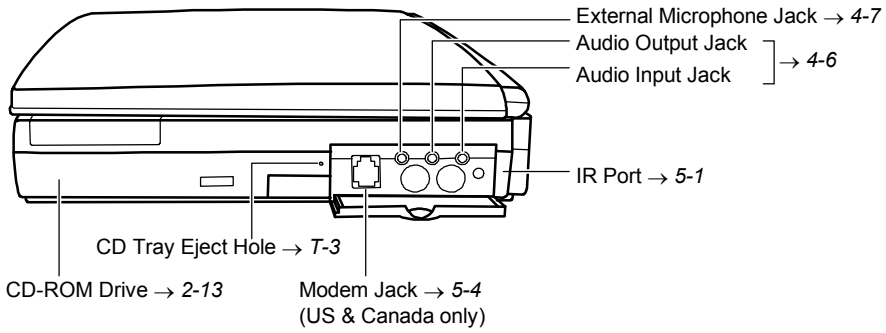
General View



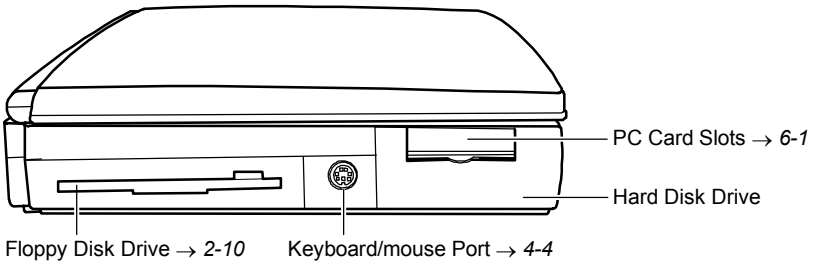
Indicator Panel



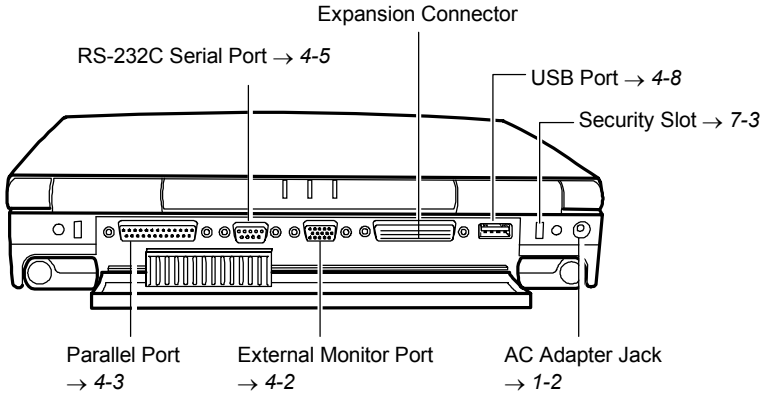
Right



Left



Rear



Bottom

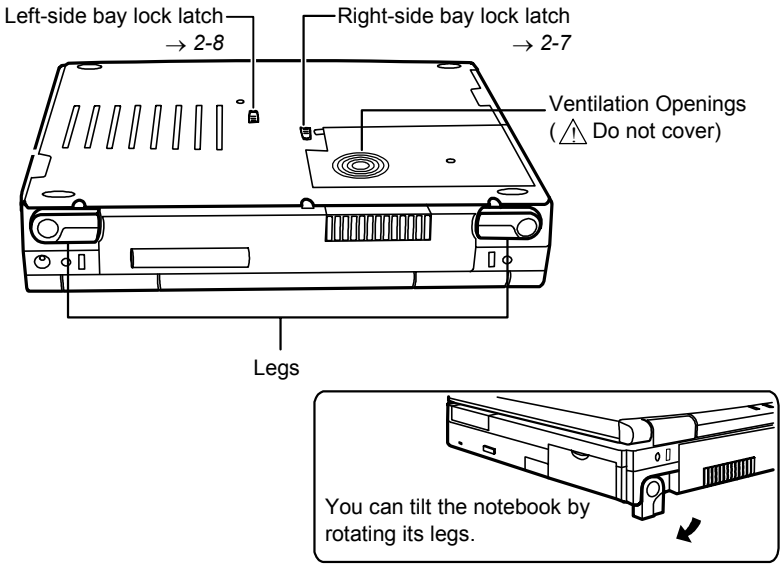
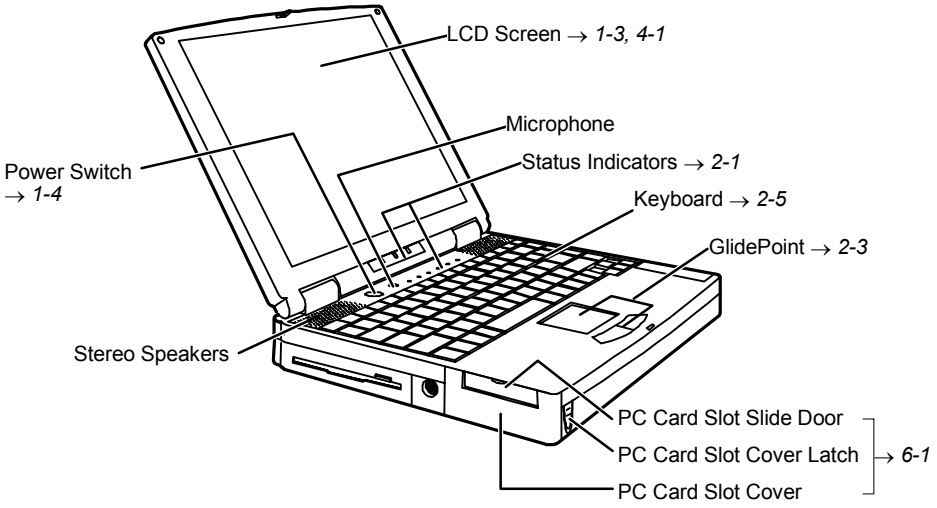

Left-side bay lock latch
→ 2-8
Right-side bay lock latch
→ 2-7
Ventilation Openings
(⚠ Do not cover)
Legs
You can tilt the notebook by rotating its legs.

Table of Contents

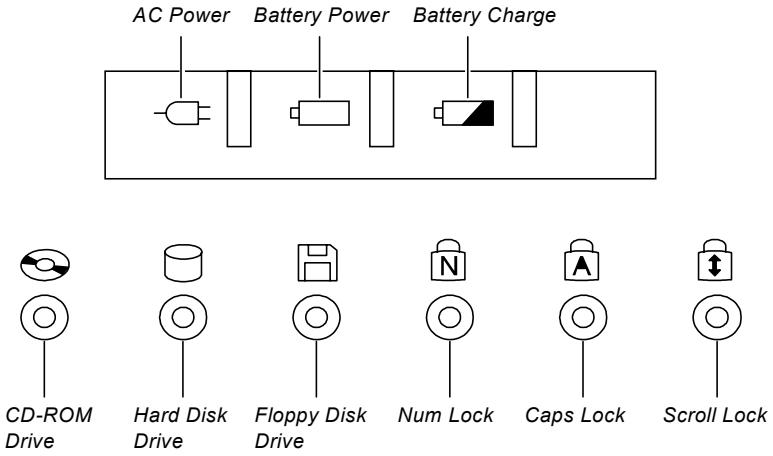
Appearance of the Notebook

Each number after the arrow indicates the page referring to the part.

General View



Indicator Panel



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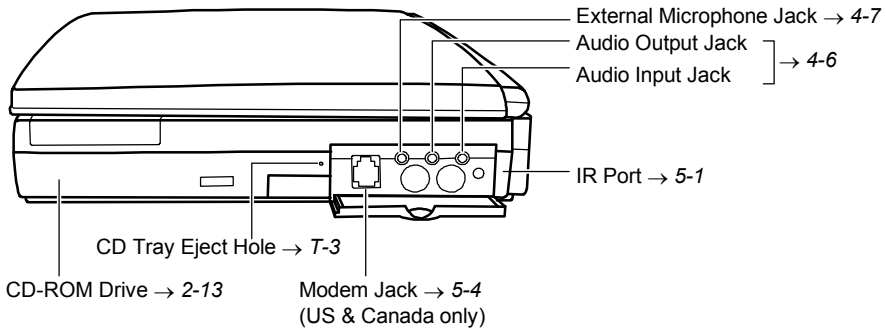

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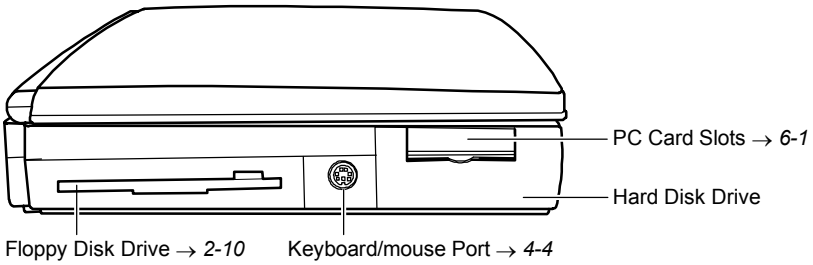
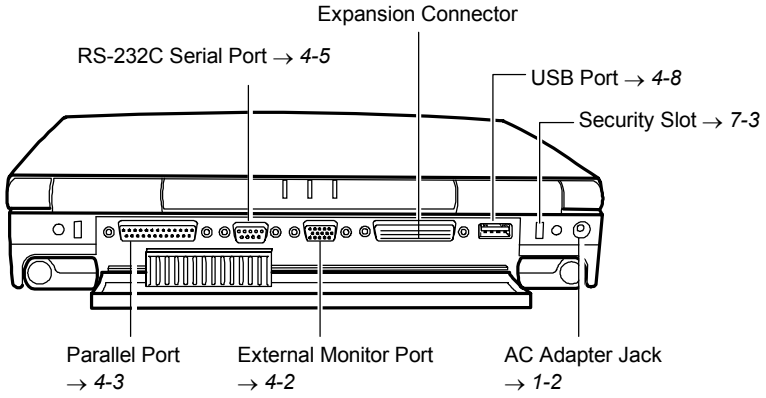
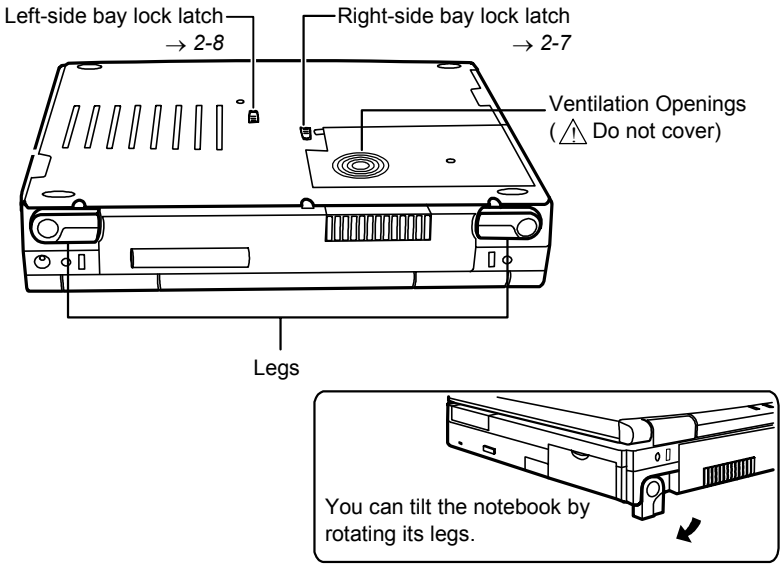


Rear



Bottom


Left-side bay lock latch
→ 2-8
Right-side bay lock latch
→ 2-7
Ventilation Openings
(⚠ Do not cover)
Legs
You can tilt the notebook by rotating its legs.

CHAPTER 1

Quick Setup

Your notebook is designed and pre-configured for easy setup and use. This chapter describes the steps to get your notebook up and running as quickly as possible. Read this chapter first.

Unpacking the Notebook

Your notebook comes securely packaged in a sturdy cardboard shipping carton. Upon receiving your notebook, open the carton and carefully remove its contents. In addition to this Operation Manual, the shipping carton should contain the following items:

- Notebook computer
- AC adapter
- AC adapter cable
- Battery Pack
- Windows 95 CD-ROM
- Backup CD-ROM
- Setup Boot Disk
- USB Supplement Disk
- Introducing Microsoft Windows 95
- Reinstallation Instructions
- TranXit Quick Reference Guide
- SuperVoice User's Guide (only in US and Canada)
- Sharp Import/Export User's Guide (not available in Germany)
- Profilink Windows (only in Germany)
- Notice to Users

Carefully inspect each component to make sure nothing is missing or damaged. If any of these items is missing or damaged, notify your dealer immediately. Be sure to save the shipping materials and carton in case you need to ship or store the notebook in the future.

Connecting to AC Power

Your notebook works with either the rechargeable battery or AC power. See the next chapter for more information on power sources. Before using the notebook for the first time:

1. Make sure the notebook is turned off.
2. Connect the notebook and the AC adapter with the adapter cable.
3. Plug the AC cord into the AC adapter.

- *Always use the AC adapter included with the notebook. Using other AC adapters may damage the notebook.*
- *Always hold the AC cord by its plug when pulling off from the wall outlet.*

4. Plug the AC cord into a wall outlet.

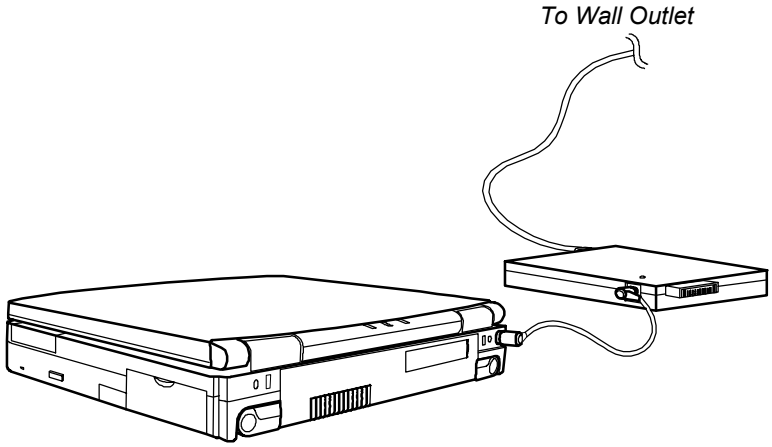


Figure 1-1. Connecting to AC Power

Opening the Notebook

To open your notebook,

1. Slide the display lock latch until the screen cover releases, and raise the cover.
2. Tilt the cover to a comfortable viewing position.

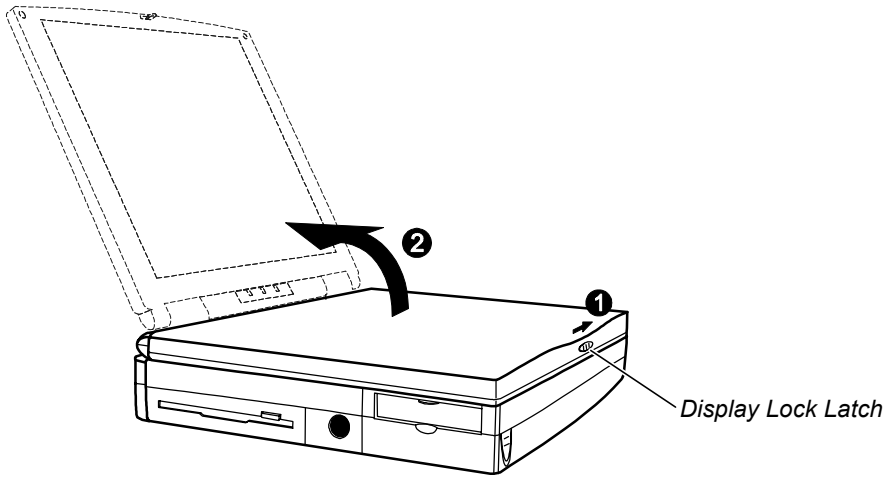


Figure 1-2. Opening the Screen Cover

Turning Power On

To turn on the power,

1. Make sure your notebook is connected to the AC Power.

When using the notebook the first time, be sure to connect it to an AC power. If you use the battery instead, the Windows 95 setup may not be able to finish when the battery does not have enough power.

2. Press the power switch.

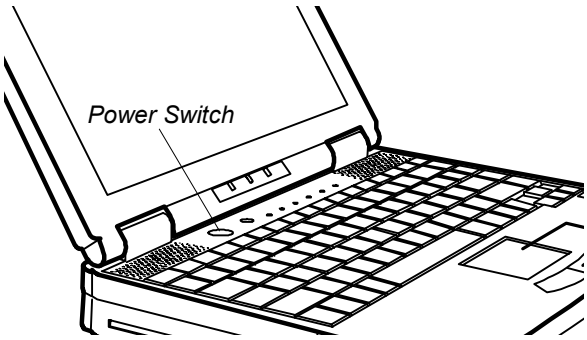


Figure 1-3. Turning Power On

When you turn on the notebook, the power indicator (⏻) lights green, the notebook goes through a self test to detect any problems, and Windows 95 starts. When using the notebook for the first time, a dialog box called the *Windows 95 Setup* wizard appears to guide you through the Windows 95 setup.

Figure 1-4. Windows 95 Setup Wizard

Setting up Windows 95

The first steps in the setup process are as follows:

- Gathering information
- Configuring your computer
- Restarting your computer

To set up Windows 95, follow the instructions on the screen. See also the manual of Windows 95. It takes approximately 20 minutes to complete the entire setup process.

Setting Original Wallpaper

After setting up Windows 95, set the SHARP original wallpaper in the following procedure.

1. Double-click the *Click me to set up SHARP Wallpaper* icon at the upper right corner of the screen.
2. When the message appears, click *OK*. The SHARP original wallpaper is displayed on the screen.

Shutting Down the System

To turn off the notebook:

1. From the *Start* menu, select *Shut Down*.
2. Click *Yes*, and the notebook turns off automatically.

If you have not saved a file, a dialog box will appear asking if you want to save it or not.

- *Do not turn off or reset the notebook while the hard disk or floppy disk drive indicator is lit. Doing so may damage or even wipe out the data.*
- *To protect the screen, always close the screen cover while the notebook is off.*
- *Before turning it back on, wait at least 10 seconds after turning off the notebook. Turning the power off and on in rapid succession can damage the notebook's electrical circuitry.*

CHAPTER 2

Basic Operations

This chapter describes the basic operations you can perform on the notebook.

Choosing Power Source

You can use the notebook with one of the following power sources:

- AC power from a wall outlet
- Rechargeable battery pack

Use AC power whenever possible; rely on the battery pack only when AC power is not available.

2

About the Power Indicators

The power indicators show the power status of your notebook.

Indicator	Green Light	Meaning
AC power	On	Operating with the AC power
	Blinking	Suspended to RAM (while operating with AC)
Battery power	On	Operating with the battery power
	Blinking	Suspended to RAM (while operating with battery)
Battery charge	On (green)	Fully charged
	On (orange)	Being charged
	Blinking (red)	Almost completely discharged. (The warning beep sounds)

For more information on Suspend to RAM, see Chapter 3.

Using the AC Adapter

When connected to a wall outlet, the AC adapter provides power for operation or charges the battery. The AC input voltage can range from 100 to 250 volts so that you could use the notebook with the appropriate plug adapter.

The AC power cord included with the notebook is appropriate for the voltage of your local area. If you attempt to connect the notebook to a wall outlet other than in your local area, check the voltage of the outlet and use an AC power cord appropriate for the outlet.

You can also install the AC adapter into the left-side bay. Refer to the section of *Installing Units into Bays* in this chapter for the detail.

Resetting the System

You may need to reset the system after adding hardware or software so that your notebook will recognize the newly installed devices or software. When a message appears after the installation, click *OK*, *Yes*, etc. to restart Windows 95.
You can also restart Windows 95 from the *Start* menu. Select *Shut down*; then, *Restart the computer?*.

Warm Boot

If the system is locked up because of a software problem, you can reset or reboot the system by pressing the **Ctrl+Alt+Del** keys simultaneously. Press the **Ctrl+Alt+Del** keys again to restart the notebook.

Resetting may cause data loss. Use the software reset only if the normal Windows 95 Shut Down does not work because of software malfunction. Although resetting will not damage the system, you may lose the data you are processing.

Power Switch

You can turn off the notebook with the power switch if you encounter hardware or software problems which lock up the system.

Operating GlidePoint

Your notebook is provided with an integrated pointing device called GlidePoint. Through GlidePoint, you can move the pointer, select an item among the menu, etc. just like with a mouse. GlidePoint is also compatible with a PS/2 mouse.

- *Do not hit or scratch the surface of the GlidePoint with pointed objects (such as a ballpoint pen).*
- *Do not operate the GlidePoint with a moist finger. This may cause GlidePoint to operate incorrectly.*

Using the GlidePoint

Take a moment to become familiar with how the GlidePoint works.

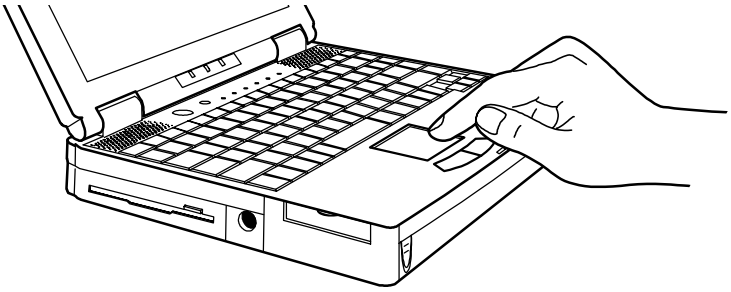


Figure 2-1. The Integrated GlidePoint

Place Your Fingertip

Place your left or right hand next to the GlidePoint, resting your wrist naturally in a relaxed manner. Place your thumb or finger on the GlidePoint.

Move Your Fingertip

The rectangular pad of the GlidePoint acts like a miniature duplicate of the display. As you slide your fingertip across the pad, the pointer on the screen moves in the same direction across the screen. The GlidePoint is very sensitive, and you do not have to exert much pressure on the pad. GlidePoint will respond to a light touch from your fingertip.

Click, Double-click, and Right-click

To click, double-click, or right-click, you can use the left or right button just like those of a mouse. Instead of clicking by pressing the left button, you can just tap gently anywhere on the rectangular pad of the GlidePoint. For double-clicking, tap twice gently.

Drag and Drop

You can move icons or windows by using ''drag and drop."

1. Position the pointer over the object such as an icon or window.
2. Press the left button; do not release it.
3. Holding down the button, move the pointer. The object moves together with the pointer.
4. Release the button when the object comes to the appropriate place.

You can also drag and drop by tapping the GlidePoint.

1. Position the pointer over the object.
2. Gently tap twice on the pad.
3. On the second tap, keep your finger in contact with the pad.
4. Holding down the button, move the pointer. The object moves together with the pointer.
5. Release the button when the object comes to the appropriate place.

Changing the Configuration

You can change the configuration of the GlidePoint, such as swapping left and right buttons, changing the pointer size, etc. To adjust the configuration:

1. From the *Start* menu, select *Settings* - *Control Panel*.
2. Double-click the *Mouse* icon. The Mouse Properties window opens.

- *If you swap the left and right buttons, '' tapping'' on the GlidePoint as an alternative method of pressing the left button will no longer function.*
- *Your finger or palm may unconsciously touch the GlidePoint. This touching is recognized as "tapping" or click, and the system works as if you click. To avoid this inconvenience, you can disable the tapping function in the* Mouse Properties *window. Select* Tapping*, uncheck* Tapping*, and click* OK.

Using Keyboard

Your notebook, equipped with the Windows Enhanced Keyboard, provides all the functionality of a full-sized desktop keyboard. You should familiarize yourself with the special notebook function keystrokes.

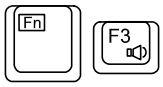
Windows Logo Keys

Opens the Windows Start menu.

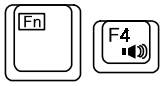
Provides application-specific short-cut menu equivalent to the right-clicking.

System Function Keys

Your notebook provides system function keys. When pressed in conjunction with the **Fn** key, these keys set specific system parameters and are sometimes referred to as ''hot keys''.

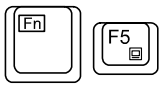


Decreases the sound volume.



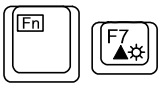
Increases the sound volume.

Do not use the above system function keys while recording sound.

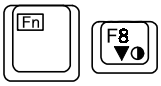


Switches the display output between the LCD screen and external monitor (if connected).

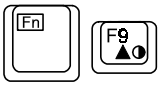
Decreases the LCD screen brightness.



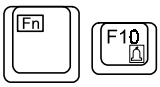
Increases the LCD screen brightness.



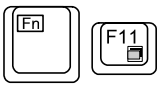
Decreases the LCD screen contrast (only for DSTN models).



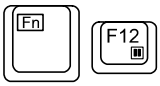
Increases the LCD screen contrast (only for DSTN models).



Turns on and off the battery low warning beep.



Turns on and off the screen backlighting.



Puts the notebook in suspend mode (to RAM or to Disk, according to the setup selection).

Installing Units into Bays

When shipped, your notebook is equipped with the CD-ROM drive in the right-side bay and with the floppy disk drive in the left-side bay. You can uninstall these drives and install other units such as the battery pack and the AC adapter.

- *After installing or uninstalling the floppy disk drive, change the settings. See the end of this section.*
- *You can install the AC adapter only in the left-side bay.*
- *You can install the CD-ROM drive only in the right-side bay.*

Right-side Bay

The right-side bay is installed with the CD-ROM drive when the notebook is shipped. You can install the following units into the right-side bay.

- Battery pack
- Floppy disk drive

To uninstall the unit in the right-side bay:

1. Turn off the notebook.
2. Disconnect the AC adapter and all the peripheral devices.
3. Turn the notebook upside down on a flat place.
4. Slide the bay lock latch to the releasing position, and gently draw the unit out.

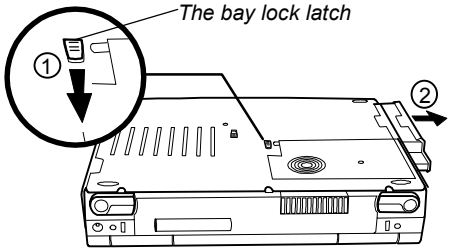


Figure 2-2. Uninstalling the unit in the right-side bay

To install the unit in the right-side bay:

1. Make sure the notebook is turned off and upside down.

2. Insert the unit into the bay with the connector forward.
   When the unit is correctly installed, you hear a clicking sound, and the bay lock latch returns to the original position.

Left-side Bay

The left-side bay is installed with the floppy disk drive when the notebook is shipped. You can install the following units into the left-side bay.

- Battery pack
- AC adapter

To uninstall the unit in the left-side bay:

1. Turn off the notebook.
2. Disconnect the AC adapter and all the peripheral devices.
3. Turn the notebook upside down on a flat place.
4. Slide the bay lock latch to the releasing position, and gently draw the unit out.

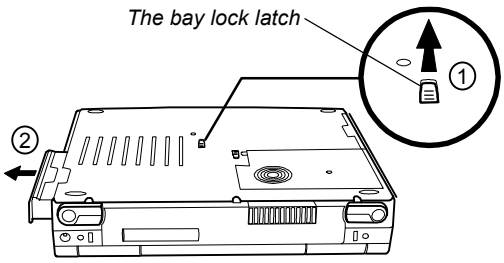


Figure 2-3. Uninstalling the unit in the left-side bay

To install the unit in the left-side bay:

1. Make sure the notebook is turned off and upside down.
2. Insert the unit into the bay with the connector forward.
   When the unit is correctly installed, you hear a clicking sound, and the bay lock latch returns to the original position.

When using the AC adapter in the bay, you do not need the adapter cable.

Installing and Uninstalling the Floppy Disk Drive

After installing or uninstalling the floppy disk drive, you have to change the settings as follows.

After installing the floppy disk drive:

1. Turn on the notebook.
2. When the message *Press <F2> to enter SETUP* appears, press **F2**.
3. In the *Main* menu, set the item of *Diskette A:* to *1.44 MB, 3 1/2*.
4. Press **Esc**; then, **Enter** twice. The system restarts.
5. From the *Start* menu, select *Settings* - *Control Panel*.
6. Double-click *System*, and select the *Device Manager* tab.
7. Double-click *Floppy disk controllers*.
8. See whether an X mark is attached to *Standard Floppy Disk Controller*. If the mark is not attached, the settings are finished. If the mark is attached, go on to the next step.
9. Double-click *Standard Floppy Disk Controller*.
10. Uncheck *Disable in this hardware profile*.
11. Click *OK*; then, *Yes*.

After uninstalling the floppy disk drive:

1. Turn on the notebook.
2. When the message *Press <F2> to enter SETUP* appears, press **F2**.
3. In the *Main* menu, set the item of *Diskette A:* to *Not Installed*.
4. Press **Esc**; then, **Enter** twice. The system restarts.

Using Floppy Disks

You can use double-density (2DD) 720KB or high-density (2HD) 1.44MB floppy disks.

Handling Floppy Disks

- Do not open the shutter and touch the disk inside; otherwise, you will not be able to read or write data to the disk.
- Do not place floppy disks near magnets or heat source, in direct sunlight or in a dusty place, etc.
- Do not leave floppy disks on the built-in speakers; the magnets inside the speakers may destroy the data in the disks.
- Never subject a disk to sudden shocks or extreme vibration. Do not drop or bend it. Do not place heavy objects on the disk.
- Do not spill liquid onto the disk.

Inserting and Removing a Floppy Disk

Inserting

Hold the floppy disk with the arrow facing up and towards the drive. Slide the disk into the drive until it clicks into place. When you set the floppy disk correctly, the eject button pops out.

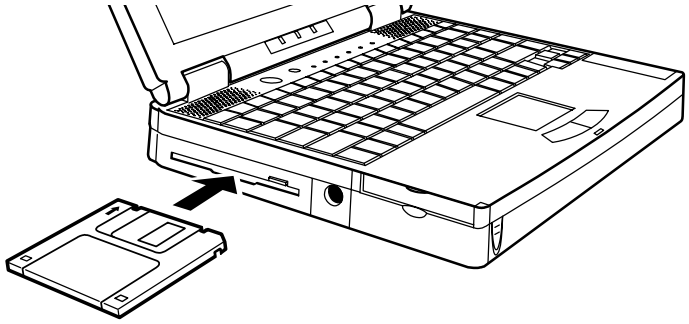


Figure 2-4. Inserting a Floppy Disk

Always insert a floppy disk straight into the notebook.
When inserting the disk into the notebook, make sure it is not upside down.
Do not push the disk into the notebook by excessive force.

Removing

Make sure the floppy disk drive indicator is off. Press the eject button to pop out the disk slightly. Remove it and store it away properly.

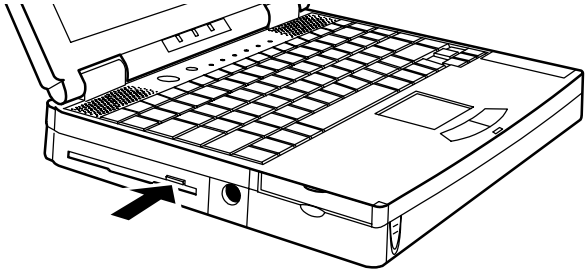


Figure 2-5. Removing a Floppy Disk

Formatting a Floppy Disk

1. Make sure the floppy disk is not write-protected, and insert it into the floppy disk drive.
2. Double-click *My Computer* on the desktop.
3. Click *3 ½ Floppy [A:]*. From the *File* menu, select *Format*.
4. From the capacity drop-down list, select 1.44MB or 720KB.
5. Click *Start* to start formatting.

When you format a floppy disk, all the data in the disk are deleted.

Backing Up Data

We recommend that you regularly backup the data on your hard disk drive in case. Windows 95 has a backup function to let you easily back up your data.

From the *Start* menu, select *Programs* - *Accessories* - *System Tools* - *Backup* to start the backup operation. For more information, see the Windows 95 Help.

Backup method may differ depending on software in use.

Installing and Uninstalling Floppy Disk Drive

The floppy disk drive is originally installed into the left-side bay; however, you can install it into the right-side bay. See the previous section for the details.

Using CD

Compact disc (CD) is a storage medium with which you can read data, play music, install and run programs, etc. The CD-ROM drive is available in the right-side bay of your notebook.

Handling CDs

- Do not write on either side of the disc, particularly the non-label side. Data is read from the non-label side. Do not mark this surface.
- Keep your discs away from direct sunlight, heat and excessive moisture.
- Always hold the CDs by the edges. Fingerprints, dirt or water on the CDs can cause noise or mistracking. If a CD is dirty or does not play properly, clean it with a soft, dry cloth, wiping straight out from the center, along the radius.

Inserting a CD

You can operate the CD-ROM drive only when the notebook is on.

1. Make sure the CD-ROM drive indicator does not light on (it is supposed to blink periodically).
2. Press the eject button to open the CD tray slightly.
3. Gently pull out the tray.

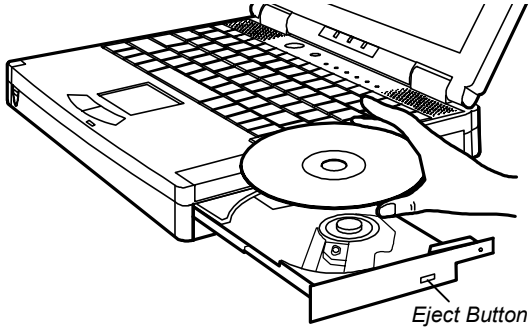


Figure 2-6. Opening the CD Tray

4. Place your CD, label side up, on the tray.
5. Slightly press the center of the CD until it clicks into place.

6. Gently push the CD tray back into the notebook.

- *When inserting a CD, do not use force.*
- *Make sure the CD is correctly inserted into the tray, then close the tray.*
- *Do not leave the CD tray open. Also, avoid touching the lens in the tray. If the lens becomes dirty, the CD-ROM may malfunction.*
- *Do not wipe the lens with materials with rough surface (such as paper towels). Instead, use a cotton swab to gently wipe the lens.*

FDA regulations require the following statement for all laser-based devices:

''Caution, Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.''

Removing a CD

1. Make sure the CD-ROM drive indicator does not light on.
2. Press the eject button to open the CD tray slightly.
3. Gently pull out the tray.
4. Remove the CD from the tray.
5. Gently push the CD tray back into the notebook.

- *When opening the CD tray, if the CD is still spinning, wait until it has stopped, then remove it.*
- *Do not remove the CD if the CD-ROM indicator LED is still lit; otherwise the notebook may malfunction.*
- *Maximum output and wavelength of the laser: 4.3mW, 780nm*

For uninstalling and reinstalling the CD-ROM drive, see the section of *Installing Units into Bays*.

CHAPTER 3

Battery and Power Management

This chapter explains how to manage the notebook's power effectively and use optional battery packs.

Battery Pack

When not connected to an external power source, your notebook operates with the rechargeable battery pack. The battery pack, when fully charged, can provide power to your notebook for up to 1.5 hours. The duration of the battery life may be longer if the notebook's Power Management is active. An optional battery pack, which is the same type with the standard battery pack, is also available.

- *When the battery is not charged, your notebook may not operate properly. Connect the AC adapter to charge the battery.*
- *If you see the message* Press <F1> to resume, <F2> to SETUP *in the booting time, press* ***F2*** *to open the Setup Utility. Press* ***Esc****; then,* ***Enter*** *twice. The system restarts.*

Installing the Battery Pack

You can install the battery pack either right- or left-side bay of your notebook as in the same way with other units. See Chapter 2.

- *Before installing or uninstalling the battery pack, turn off your notebook. If not, the system may malfunction or the data may be lost*
- *Incorrect installation of the battery is dangerous. Replace the battery only with Sharp's optional battery packs. Discard used batteries according to the dealer's instructions.*

The procedure for recharging an optional battery pack is the same as the standard battery.

Initializing the Battery Pack

Before using the battery pack for the first time, be sure to initialize it:

1. Make sure the battery pack is installed.
2. Turn on the notebook.
3. When the message *Press <F2> to enter SETUP* appears, press **F2** to open the Setup Utility.
4. Disconnect the AC adapter, and leave the notebook until the battery is completely discharged and the system shuts down automatically. It takes about one and half hours.

5. Connect the notebook to the AC adapter and fully charge the battery pack.

- *If you connect the notebook to wall outlet while discharging the battery, the initialization is cancelled.*
- *You cannot initialize two battery packs at the same time.*

Charging the Battery

1. Turn off the notebook.
2. Connect the AC adapter to the notebook.
3. Wait until the battery is fully charged. When the battery is fully charged, the battery charge indicator lights green. It usually takes about one and half hours. The charging time, however, may vary owing to the status of the notebook.

As a pre-caution, under long hours of operation, the battery charge indicator may light off and the notebook may stop charging the battery automatically when it gets too hot. When the temperature is low again, the system resumes charging the battery.

Checking the Battery Level

1. From the *Start* menu, select *Settings - Control Panel*.
2. Double-click *Power* and read the battery level.

- *Double-clicking the battery or AC plug icon on the taskbar shows the battery power remaining.*
- *The battery power remaining is an approximate figure. The remaining operating time expected may be different from the actual remaining time, depending on the use of the notebook. If the the difference is too large, initialize the battery pack as per above procedure.*

Low Battery Indication

When the battery power becomes significantly low, the battery charge indicator ( ) blinks red and the warning beep sounds. To stop the beep, press **Fn** + **F10**.

When the low battery power is indicated, connect the notebook to a wall outlet quickly. If not, the notebook will automatically suspend to disk and will store the contents of the memory in the suspend-to-disk partition. When your notebook suspends, do not turn on the notebook before connecting to a wall outlet or installing a fully charged battery.

The remaining operating time depends on the power you are consuming: if you are using the audio system, PC card slot or hard and floppy disk drives, your notebook might run out of power quicker.

See also the section about the power management.

Maintaining the Battery Pack

To keep the battery life long:

- Sometimes initialize the battery pack especially when the difference between battery power remaining and the actual operating time is too large.
- Turn off your notebook when not using.

Disposing of Battery Packs

The capacity of a battery pack gradually decreases when used repeatedly though the deterioration rate depends on the operating temperature and environment. After the battery pack has deteriorated, buy the same type battery pack as a replacement. Note that your local area may have rules of battery disposal.

Backup batteries

In addition to the main battery, your notebook contains a backup battery to save information in the Setup Utility (See Chapter 8). If your notebook begins to lose its time and date setting, bring it to a local dealer for replacement of this backup battery.

Power Management

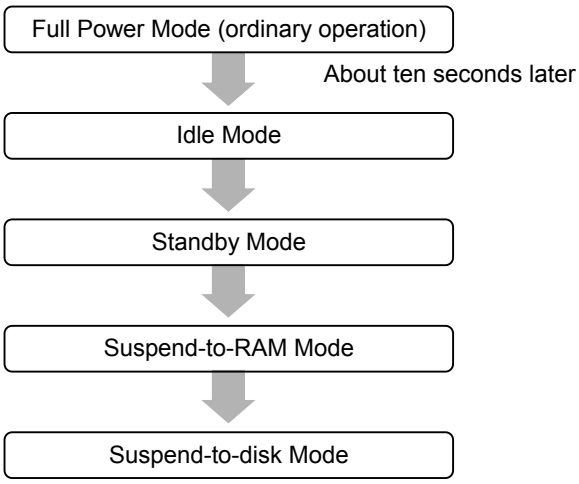
The power management saves electricity and extends battery life by controlling power supply to built-in devices. In power management are the following four modes:

- Idle mode
- Stand-by mode
- Suspend-to-RAM mode
- Suspend-to-disk mode

3

Switching to Each Mode

If you do not input any data through the keyboard or GlidePoint, your system enters a power management mode, depending on the duration of no operation. You can set the period when the system switches to the next mode (except entering the idle mode) in the Setup Utility.



If you have set each time to Disabled*, the power management does not switch to the next mode.*

Idle Mode

Your notebook enters the idle mode if you do not use the keyboard, GlidePoint, the mouse, the hard disk, or the serial port for about ten seconds. In the idle mode, the CPU speed is decreased. When you begin using the notebook again, the CPU will resume its normal speed.

Standby Mode

Your notebook enters the standby mode if the specified time has passed without any operation. In the standby mode, the system saves the power by the following means:

- Stopping the CPU clock
- Stopping power supply to the LCD screen and the hard disk drive
- Reducing power consumption in the I/O controller, the PCMCIA controller, and the display controller

To resume from the standby mode, press any key or touch the GlidePoint.

Suspend-to-RAM Mode

In the Suspend to RAM, the system stores the current status in the RAM and stops power supply to all but a few essential components. The Suspend to RAM is helpful when you have to pause your computing but plan to resume working after a short interval.

Your notebook enters the Suspend to RAM if:

- The specified time has passed without any operation,
- You select *Suspend* in the *Start* menu,
- You press **Fn**+**F12** (if you have selected RAM in the item of *Hot-key Suspend Data to* in the Setup Utility), or
- The screen cover is closed (if you have selected RAM in the item of *Hot-key Suspend Data to* and selected Suspend in *Cover Close* in the Setup Utility).

Your notebook resumes from the Suspend to RAM if:

- You press any key,
- The *Resume Time* specified in the Setup Utility comes,

- You open the screen cover and press any key if the system enters the suspend mode by closing the cover (as long as the battery voltage is sufficient), or
- The modem receives a call (in US and Canada only).

  If you do not want to resume your system by calling:

  1. Restart the notebook.
  2. When the message *Press <F2> to enter SETUP* `appears,` press **F2**.
  3. Press the right arrow key to select *Power* menu.
  4. Set the item of *Resume On Modem Ring* to *Disabled*.
  5. Press **Esc**; then, **Enter** twice.
  6. From the *Start* menu, select *Settings* - *Control Panel*.
  7. Double-click *Power*.
  8. In the *Power Properties* dialog box, click *Advanced*.
  9. Uncheck the item of *Wake up the computer when the phone rings*.
  10. Click *OK* twice.

When resuming from the suspend mode, the system restores the exact state as it was when entering the suspend mode.

- *If sufficient battery power does not remain, your notebook will not resume from a suspend mode. To resume it from a suspend mode, connect the notebook to the wall outlet.*
- *The RAM contents are preserved using the AC power supply or the battery. If all power sources are disconnected while the system is in the Suspend to RAM, the RAM contents will be lost.*

When entering or resuming from a suspended mode, be sure to observe the following precautions. Otherwise, the notebook may not operate correctly after the notebook has resumed from the suspend mode.

- *Do not operate the keyboard, GlidePoint or mouse in the process of entering or resuming from the suspended mode.*
- *Before the system enters a suspended mode, terminate any communications and make sure that no video or audio playback or recording is in progress.*
- *Make sure the Windows power management is on (see page 3-10).*

Suspend-to-Disk Mode

The Suspend to Disk mode saves the current condition in an area of hard disk, which is called ''suspend-to-disk partition,'' and the notebook is automatically turned off. Your notebook enters the Suspend to Disk if:

- The time specified in the Setup Utility has passed without any operation,
- The battery level is low,
- You press **Fn**+**F12** (if you have selected Disk in the item of *Hot-key Suspend Data to* in the Setup Utility), or
- The screen cover is closed (if you have selected Disk in the item of *Hot-key Suspend Data to* and selected Suspend in *Cover Close* in the Setup Utility).

To resume your notebook from the Suspend to Disk mode, press the power switch. The system restores the exact state as it was when entering the suspend mode. If the notebook enters the suspend mode by low battery power, however, you have to connect the notebook to AC power first. Suspend to Disk is useful when you want to turn off the notebook and reopen the same windows after turning it on.

- *67MB of your hard disk space has been reserved as the suspend-to-disk partition when your notebook shipped from the factory. This means you can safely suspend to disk if the notebook has 64MB of installed memory.*
- *When the system enters or resumes from Suspend to Disk mode, you can see some flicker on the display. However, this is not a malfunction.*
- *If sufficient battery power does not remain, your notebook will not resume from a suspend mode. To resume it from a suspend mode, connect the notebook to the wall outlet.*
- *If a PC card does not work properly after your notebook resumes from the Suspend to Disk, restart the notebook.*
- *In the DOS mode, when the system enters the suspend mode after the specified time has passed, the system clock stops. Reset it with the Setup Utility.*

Setting Power Configuration

You can configure power management settings in the *Power* menu of the Setup Utility.

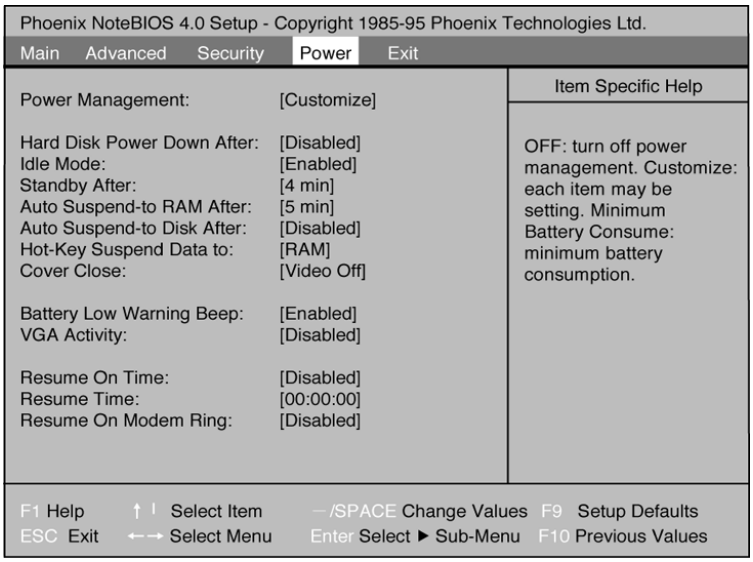


Figure 3-1. Setup Utility Power Configuration Screen

Power Management Enables or disables power management.

Hard Disk Power Down After Specifies a period of inactivity after which the system does not supply power to the hard disk drive. If the period of *Standby After* below is shorter than that of *Hard Disk Power Down After*, the value of the latter is not effective because the standby mode includes stopping the power supply to the hard disk.

Idle Mode Enables/disables the idle mode.

Standby After Specifies the period after which the system enters the standby mode.

Auto Suspend-to-RAM After Specifies the period after which the system enters the suspend-to-RAM mode.

Auto Suspend-to-disk After Specifies the period after which the system enters the Suspend to Disk.

Hot-Key Suspend Data to Switches whether the system enters the Suspend to RAM or Suspend to Disk when you press Fn + F12.

Cover Close Specifies the status when the cover is closed.

Since Windows 95 periodically accesses the hard disk and automatically writes to the display, the Auto Suspend functions above sometimes do not work.

Battery Low Warning Beep Defines whether the system makes a beep when the battery power becomes low.

VGA Activity Specifies whether the displayed screen influences the power management. If you select *Enabled*, the power management does NOT work because it means the changed screen influences the power management. If you select *Disabled*, the power management works even if the screen is slightly changed such as updating of the clock.

Resume on Time Defines whether the system resumes from the Suspend to RAM at the time defined in **Resume Time**.

Resume Time Specifies the time when the system resumes from the Suspend to RAM. The fields in this item correspond to hours, minutes and seconds, respectively.

Resume On Modem Ring Specifies whether the system resumes from the Suspend to RAM when the system is called up while suspended to RAM.

If your notebook does not have a modem, leave this item as Disabled.

To change the power management settings:

1. Turn on or restart your notebook.
2. When *Press <F2> to enter SETUP* appears, press **F2**.
3. Press the right arrow key to select *Power* menu.
4. Set each item.
5. Press **Esc**; then, **Enter** twice.

Windows Power Management

Besides the power management features you can adjust in the Setup Utility, your notebook complies with the Windows power management called Advanced Power Management (APM). Through APM, your notebook selectively powers down system components that are not in use.

To adjust the Windows power management,

1. From the *Start* menu, select *Settings* - *Control Panel*.
2. Double-click *Power*.
3. In the *Power Properties* dialog box, set each item.
4. Click *OK* to close the dialog box.

When using communication software or if sound or voice pauses or skips while played back, set the Windows power management to Off.

CHAPTER 4

Peripherals

This chapter describes how to use peripheral devices of your notebook. You can connect a printer, external monitor, external keyboard, mouse, or any other device to the parallel, RS-232C serial or keyboard/mouse ports.

Display

You can use a CRT monitor as an external monitor. To display only on a CRT monitor, use a VGA-compliant model or model with 1024x768 or higher resolution. To display on CRT and LCD simultaneously, use a model with 1024x768 or higher resolution. You can switch the display output with **Fn +F5**.

Changing Resolution and Number of Colors

When shipped, your notebook has the default resolution of 1024x768 and the color palette of High Color (16 bit). To change the resolution and the number of colors:

1. From the *Start* menu, select *Setting - Control Panel.*
2. Double-click *Display*.
3. Click the *Settings* tab.
4. Select the number of the colors in the *Color palette*, and select the resolution in *Desktop area*. Refer to the table below.
5. Click *OK* twice.

Resolutions and Colors you can choose

Resolution	Number of Colors		
	LCD	CRT	Simultaneous display (LCD & CRT)
640 x 480	256 65,536 16,770,000	256 65,536 16,770,000	256 65,536 16,770,000
800 x 600	256 65,536 16,770,000	256 65,536 16,770,000	256 65,536
1024 x 768	256 65,536	256 65,536	256 65,536
1280 x 1024	not available	256	not available
1600 x 1200	not available	256	not available

- *Some CRTs, which are not compliant with your notebook, may not display correctly.*
- *Even when you set the number of colors to about 16,770,000, the actual number of colors on the LCD screen is about 260,000.*
- *In the* Color Palette*,* High Color (16 bit) *means 65,536 colors, and* True Color (24 bit) *means about 16,770,000 colors.*

- *If you select* True Color *in the* Color Palette*,*
  ** The drawing speed of screen is decreased,*
  ** The screen seems corrupted when displaying video or animation, and*
  ** The screen cannot display when you use a ZV port compliant PC card.*

Connecting a CRT Monitor

Follow the instructions below to use a CRT monitor with the notebook.

1. Turn off the notebook and the CRT monitor.
2. Open the connector compartment cover on the rear side of the notebook.
3. With a 15-pin monitor cable, connect the CRT monitor to the external monitor port of your notebook. If the connector has screws, tighten them.
4. Turn on the CRT monitor and the notebook.
5. Switch the display with **Fn** + **F5**.

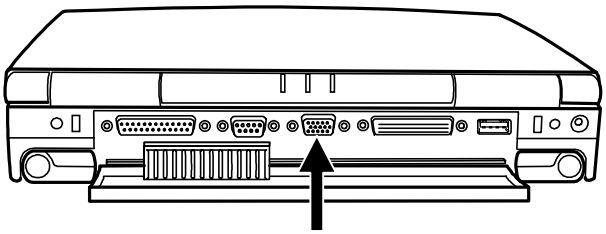


Figure 4-1. Connecting an External Monitor

Printer

Before using the printer, read the printer manual.

Connecting a Printer

1. Turn off the notebook and the printer.
2. Open the connector compartment cover on the rear side of the notebook.
3. With a 25-pin cable, connect the printer to the parallel port of your notebook. If the connector has screws, tighten them.

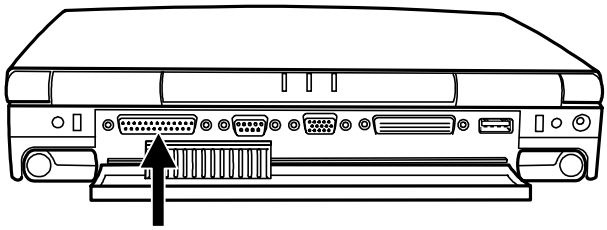


Figure 4-2. Connecting a Printer to the Parallel Port

Installing the Printer Driver

To use a printer, you have to install the printer driver.

1. Turn on the notebook and the printer.
2. From the *Start* menu, select *Settings* - *Printers*.
3. Double-click *Add Printer*. Add Printer Wizard appears.
4. Click *Next*.
5. Select the manufacturer and the printer, and click *Next*. If you cannot see the model name of your printer, you have to install the printer driver attached to the printer. See the printer manual.
6. Select *LPT1* and click *Next*.
7. Make sure the printer name is correct, and click *Next*.
8. Decide whether to print a test page, and click *Finish*. Before printing a test page, make sure the printer is ready.

Keyboard/Mouse

Connecting a Keyboard or PS/2 Mouse

If you wish to use a full size desktop keyboard or external PS/2 mouse with your notebook, follow the instructions below.

1. Turn off the notebook.
2. Connect the cable from your mouse or keyboard to the keyboard/mouse port on the left side.

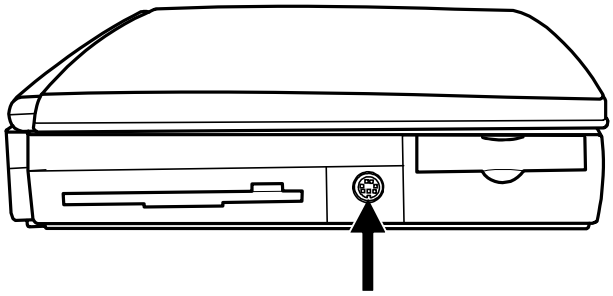


Figure 4-3. Connecting an External Keyboard or PS/2 Mouse

3. Turn on the notebook.

- *Never connect or disconnect the devices to the keyboard/mouse port when the notebook is powered on. This may cause the notebook to operate improperly.*
- *When connecting a mouse, you cannot use the GlidePoint.*

Connecting a Serial Mouse

1. Turn off the notebook.
2. Open the connector compartment cover on the rear side.
3. Connect the serial mouse to the RS-232C serial port. Tighten the screws if they are present.

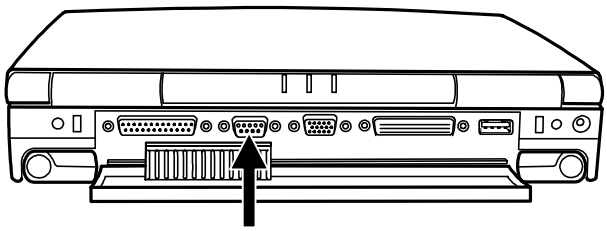


Figure 4-4. Connecting a Serial Mouse

4

5. Turn on the notebook.
6. When the message *Press<F2> to enter SETUP* appears, press **F2**.
7. In the *Advanced* menu of the Setup Utility, set the *GlidePoint (PS/2 Mouse)* to *Disabled*.
8. Press **Esc**; then, **Enter** twice.
9. From the *Start* menu, select *Settings* - *Control Panel*.
10. Double-click *Mouse*.
11. Click the *General* Tab; then, *Change*.
12. Select the manufacturer and model name, and click *OK*; then, *Close*.
13. Click *Yes*, and the notebook restarts.

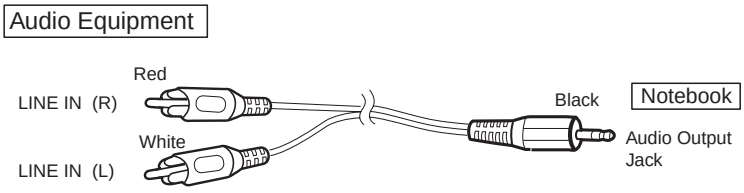
When the serial mouse is active, you cannot use the GlidePoint nor a PS/2 mouse.

Audio System

Connecting audio equipment

1. Turn off the notebook and any connected peripherals.
2. Use the following audio cable for the connection:

To output the notebook's audio signal to the audio equipment:



To input audio signal from the audio equipment to the notebook:

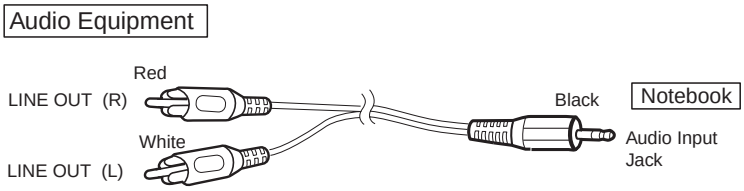


Figure 4-5. Connecting Audio Equipment

3. Turn on the notebook.

When using the audio output jack, you cannot use the built-in speakers.

Connecting an external microphone

1. Turn off the notebook.
2. Connect the external microphone to the external microphone jack on the right side.

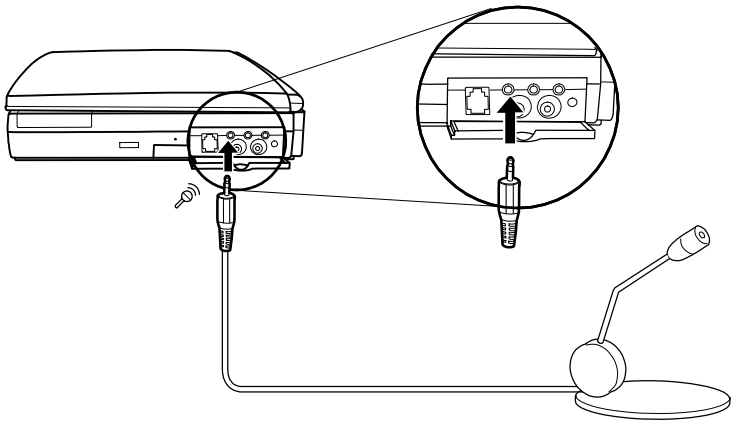


Figure 4-6. Connecting an External Microphone

3. Turn on the notebook.

When using an external microphone, you cannot use the built-in microphone.

Universal Serial Bus

Your notebook has a new interface called Universal Serial Bus (USB). This interface unifies the connection between computers and peripheral devices such as keyboards, mice, speakers, modems, and printers. Through the USB, you could connect/disconnect the peripherals without turning off the notebook. See manuals of peripheral devices supporting USB.

Connecting a USB-supporting peripheral device

1. Turn on or restart the notebook.
2. When the message *Press <F2> to enter SETUP* appears, press **F2**.
3. In the Advanced menu, enable *USB Device*.
4. Press **Esc**; then, **Enter** twice.
5. After the system starts, open the connector compartment cover at the rear of the notebook.
6. Connect the USB cable from the peripheral to the USB port.

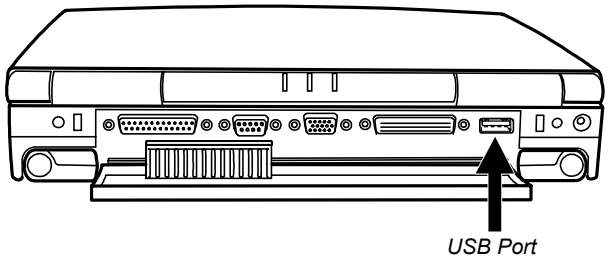


Figure 4-7. Connecting a USB device

As of April 1997, no USB devices are available. It is not guaranteed that all USB devices in future will operate correctly.

CHAPTER 5

Communication Functions

This chapter explains how to use infrared communications and the built-in modem.

Infrared Communication

Using the IR (infrared) port located on the right side of your notebook, you can wirelessly communicate with infrared-equipped devices such as electronic organizers, computers or printers. See the manual or online help of each application for the details.

Positioning and Preparing the Notebook and the Target Device

To establish wireless communication:

1. Put your notebook on a flat surface.
2. Place the target device so that its IR port is in line with that of the notebook.
3. Adjust the distance between the IR ports to less than 30 inches (80 cm).

When using a Sharp electronic organizer, make sure the two IR ports are within 4 inches (10 cm) apart.

Setting for Infrared Communication

You have to set the following items in the Setup Utility.

1. Turn on or restart your notebook.
2. When the message *Press <F2> to enter SETUP* appears, press **F2**.
3. In the *Advanced* menu, set *COM1/COM2* to *MODEM/IR*, *RS-232/IR*, or *Disabled/IR*. Namely, COM2 has to be assigned for the infrared communication.
4. Make sure the *IR Mode* is set to *IrDA1.1*.
5. In the *Power* menu, set *Power Management* to *Disabled*.
6. Press **Esc**, and select *Save Changes & Exit*, and press **Enter**.
7. After the notebook restarts, turn off the Windows power management (see Chapter 3).

Setting for Each Application

The settings for each communications software are different as below; however, most of them are automatically done.

Communications software	IR Type	Physical Port	Logical Port
TranXit (Variable mode)	IrDA	COM2	Disabled
Zrlink	ASK	COM2	COM4
Import/Export (not available in Germany)	ASK	COM2	COM4
Profilink (only in Germany)	ASK	COM2	COM4
Windows 95 Communications software (Direct Cable Connection, etc.)	IrDA	COM2	COM5

- IR Type
  The two available IR types are usually IrDA (Infrared Data Association) and ASK (Amplitude Shift Keying). An appropriate IR type for each application is automatically selected.

- Physical Port
  The physical port for the application except TranXit is automatically set. The physical port for TranXit is set when you install it.

- Logical Port
  To use TranXit, Zrlink, or Import/Export, disable the logical port:

  1. From the *Start* menu, select *Settings* - *Control Panel*.
  2. Double-click *Infrared*.
  3. Select *Options*.
  4. Uncheck *Enabled infrared communication on:*.
  5. Click *OK*.

  To use Zrlink or Import/Export, also set the port to COM4 in the application. Although seeming contradictory to the above, this step is necessary.

  After using TranXit, Zrlink, or Import/Export, enable the logical port.

IR Type Icon

For IrDA communication, your notebook is continuously emitting infrared rays to search other IR devices. If necessary, you can temporally disable this infrared emission.

1. From the *Start menu*, select *Settings* - *Control Panel*.
2. Double-click the *IR Type* icon.

3. Disable the IR communication.
4. Click *OK*.

To use IR communications software again, select *IrDA* (even when using ASK-type application).

Other Communications software

For some communications software, you may have to change the logical port:

1. From the *Start* menu, select *Settings* - *Control Panel*.
2. Double-click *Add/Remove Programs*.
3. Select *Infrared Support for Window 95 Version X.X*.
4. Click *Add/Remove*; then, *No*.
5. Select *SHARP IR for Window 95 Version X.X*.
6. Click *Add/Remove*; then, *OK*; then, *Yes* to restart the notebook.
7. The SHARP 4M Infra-Red Port is detected. Follow the instructions on the screen.
8. Re-install *Infrared Support for Window 95 Version X.X and SHARP IR for Window 95 Version X.X*. Refer to Re-installation Instructions for the detail. When re-installing these drivers, you can change the logical port.

Modem (US and Canada only)

You can use the built-in modem for data transfer, fax communication and voice communication.

Connecting the Modem to Telephone Line

1. Turn off your notebook.
2. Connect one end of the included modem cable to the modem jack on the right side of your notebook.
3. Connect another end of the cable to the telephone line.
4. Turn on the notebook.

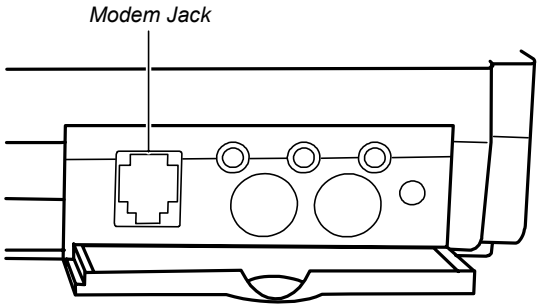


Figure 5-1. Connecting to telephone Line

Connect the modem to the telephone line directly. Do not use a distributor or allotter.

Setting the Modem in the Setup Utility

To use communication software:

1. Turn on your notebook.
2. Press the **F2** key when the message *Press <F2> to enter SETUP* appears.
3. On the *Advanced* menu of the Setup Utility, set *COM1/COM2* to *MODEM/RS-232, MODEM/IR* or *MODEM/Disabled*. Namely, COM1 has to be set for the modem.

4. In the *Power* menu, set *Power Management* to *Disabled*.
5. Press **Esc**, select *Save Changes & Exit*, and press **Enter**.
6. After the notebook restarts, turn off the Windows power management (see Chapter 3).

Using communications software

Do not enter suspend mode while using communications software.

You have to set parameters such as modem speed (baud rate) and line type (pulse dialing or tone dialing) within the communications software you are using. For details, see the documentation or online help of the software.

CHAPTER 6

Hardware Expansion

This chapter describes how to handle PC cards and increase memory of the notebook.

PC Cards

Your notebook is equipped with two PC card slots which can accommodate two Type II or one Type III card(s) conforming to the standards of the PCMCIA (Personal Computer Memory Card International Association). When using a PC card, see its manual.

Inserting PC Cards

You can insert/eject PC cards in the same way as floppy disks.

PC Card Slot Compatibility

	Type II	Type III	ZV-port compliant	CardBus compliant
Upper	3			3
Lower	3	3	3	3

1. While sliding down the PC Card slot cover latch on the front side of your notebook, open the PC card slot cover on the left side.
2. Insert the card into the appropriate slot with the label face up until it locks into place. (You do not have to power off the notebook to handle PC cards when using Windows 95). The PC card eject button pops up.

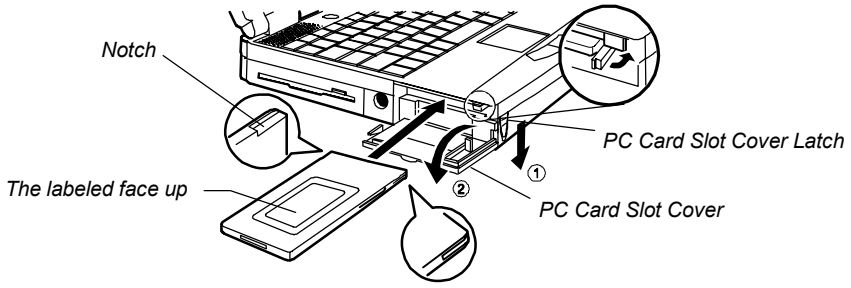


Figure 6-1. Inserting and Ejecting PC Cards

If the card is installed correctly, you hear the pip twice. Only one pip means that the PC card has not been recognized correctly. In this case, install the PC card driver (see the end of this section).

3. Slightly pull out the PC card eject button, and fold it down toward the right.
4. Close the PC card slot cover. If the inserted card has a cable, slide down the door of the cover.

In Windows 95, the upper slot is identified as Socket 2 *and the lower as* Socket 1.

When Using Two PC Cards

If two PC cards do not work properly, you may have to open an IRQ (Interrupt Request). For the procedure, see *System Mapping* in the *Appendixes*.

Ejecting PC Cards

1. From the *Start* menu, select *Settings - Control Panel*.
2. Double-click the *PC Card* icon.
3. In the *PC Card Properties* dialog box, click the icon of the PC card you want to eject.
4. Click *Stop*.
5. When the message prompting you to eject the card, click *OK*.
6. Release the latch, and open the PC card slot cover.
7. Raise up the eject button, and push it in. The PC card will be pushed out slightly.
8. Remove the card, and close the slot cover.

Installing the PC Card Driver

When you insert a PC card into the notebook, the driver for the PC card will usually be installed automatically. If the driver is not installed automatically, a dialog box for manual installation will appear. Follow the instructions on the screen to complete the installation.

Some PC cards for ATA devices such as a hard disk may not be recognized correctly. In this case, see your Windows manual or call the SHARP customer assistance center for technical support and specific installation instructions.

ZV-Port Compliant PC Card

To use a ZV-port compliant PC Card, you need to install CardWorks. When not using ZV-port compliant PC Cards, uninstall CardWorks.

Installing CardWorks

1. From the *Start* menu, select *Programs* - *Accessories* - *Notepad*.
2. From the *File* menu, select *Open*.
3. In the field of *File name*, type:
   `C:\CONFIG.SYS`
   and click *Open*.
4. Change the following lines respectively
   ```
   device=c:\windows\emm386.exe ram
   DOS=HIGH,UMB
   ```
   to
   ```
   device=c:\windows\emm386.exe NOEMS X=D000-D7FF
   ```
   (If you do not find the above line, just add.)
   ```
   DOS=HIGH
   ```
5. From the *File* menu, select *Save*.
6. Close Notepad.
7. Restart the system.
8. Insert the Backup CD-ROM in the CD-ROM drive.
9. From the *Start* menu, select *Run*.
10. In the field of *Open*, type:
    `R:\PCCARD95\SETUP.EXE`
    and press **Enter**. The message appears.
11. Follow the instructions of the installation program.
12. To the question on reading Readme, click *No*.
13. Restart the system.
14. From the *Start* menu, select *Programs* - *MS-DOS Prompt*.
15. Type:
    `MKDIR C:\VPMUTIL`
    and press **Enter**.
16. Type:
    `COPY R:\VPM\ADJUST.EXE C:\VPMUTIL`
17. Type:
    `EXIT`
    and remove the CD-ROM.

- *If you cannot use a ZV-port compliant PC Card after the above procedure, install the other version of CardWorks, which is stored at:*
  R:\PCCARD95\OLD
  in the backup CD-ROM.The ZV-port compliant card may function.
- *To adjust the screen, select* My Computer - C: - Vpmutil - Adjust.

Uninstalling CardWorks

1. From the *Start* menu, select *Programs* - *Accessories* - *Notepad*.
2. From the *File* menu, select *Open*.
3. In the field of *File* name, type:
   `C:\CONFIG.SYS`
4. Remove the following lines:
   ```
   rem SystemSoft/PCCard configuration –- Do not
   remove EMM386.EXE
   rem SystemSoft CardWorks(TM) PCMCIA drivers:
   device=C:\CARDWORK\CARDXTND.SYS
   device=C:\CARDWORK\SSCBCI.SYS /NUMADA:1
   \ADA1SKTS:2
   device=C:\CARDWORK\CS.SYS /POLL:1
   device=C:\CARDWORK\CSALLOC.EXE
   device=C:\CARDWORK\CARDID.SYS
   ```
5. From the *File* menu, select *Save.*
6. Close Notepad.
7. From the *Start* menu, select *Settings* - *TaskBar*.
8. Select the *Start Menu Programs* tab.
9. Click *Remove*.
10. Select *CardWorks*; then, *Remove*.
11. Confirm CardWorks is removed and close the dialog box.
12. From the *Start* menu, select *Settings* - *Control Panel*.
13. Double-click *System*.
14. Select the *Device Manager* tab.
15. Double-click *PCMCIA socket* and select *Cirrus Logic PD6832 CardBus Controller.*
16. Click *Remove*, confirm the removal.

17. Repeat the above steps to remove another *Cirrus Logic PD6832 CardBus Controller*.
18. Click *Refresh*.
19. Make sure both of *Cirrus Logic PD6832 CardBus Controller* are attached with the X marks.
20. Click *Close*; then, *Yes*.
21. Restart the system.

To use other PC cards, you need the following settings after the above steps:

1. From the *Start* menu select *Settings - Control Panel*.
2. Double-click the *PC Card* icon.
3. In the PC Card Wizard, make sure *No* is selected, and click *Next*.
4. In the next window, make sure *No* is selected, and click *Next* again.
5. Click *Finish.*
6. Click *Yes*. The system automatically shuts down.
7. Turn on the notebook again.
8. From the *Start* menu, select *Settings - Control Panel*.
9. Double-click the *System* icon.
10. Select the *Device Manager* tab.
11. Double-click *PCMCIA socket* and make sure two *Cirrus Logic PD6832 CardBus Controller*s are displayed (without X marks).
12. Click *OK*.
13. Double-click the *My Computer* icon.
14. Double-click the *C:* icon.
15. Click the *CardWork* folder.
16. From the File menu, select *Delete*.
17. Click *Yes*, and delete all the files in the folder, following the instructions on the screen.

Memory Module

Your notebook comes with 32MB of memory. You can expand the memory size by installing a pair of 4MB, 8MB or 16MB memory modules.

Standard	Memory Modules	Total
32MB	4MB x 2	40MB
	8MB x 2	48MB
	16MB x 2	64MB

Installing a Memory Module

- *Do not handle the memory module where static electricity is easily generated such as on the carpet.*
- *Before installing the memory module, carefully discharge static electricity from your body by touching an unpainted metal area.*
- *Avoid touching the integrated circuits on a memory module. Handle all components by the edges.*
- *Keep the memory module in the anti-static wrapping until you are ready to install it.*

Follow the steps below to install a memory module:

1. Turn off the notebook, and disconnect the AC adapter and peripheral devices.
2. Turn over the notebook and place it on a flat surface.
3. Slide the right-side bay lock latch to the releasing position, and gently draw out the unit in the bay.
4. Remove the screw from the memory compartment cover. (Notice that the screw is inside the bay.)

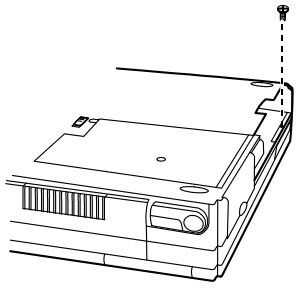


Figure 6-2. Removing the screw

5. Turn over the notebook to the ordinary position, and open the display panel.
6. Remove the memory compartment cover by pressing down and then out.

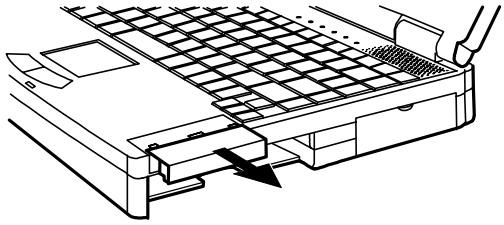


Figure 6-3. Removing the Compartment Cover

7. Raise the tape attached on the memory module board until it snaps up, and gently draw out the module board.

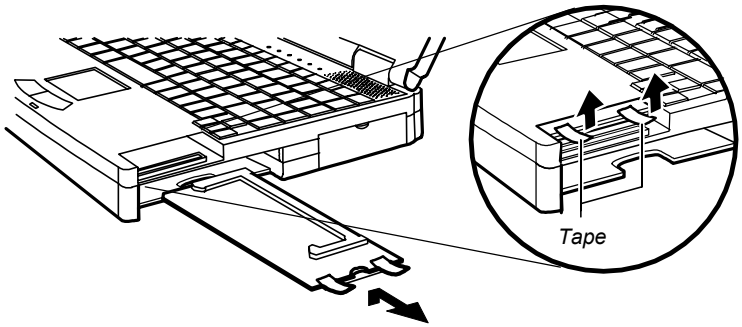


Figure 6-4. Removing the Memory Board

8. Inclining the memory module, match its notched part with the board, and push down the memory module on both ends.

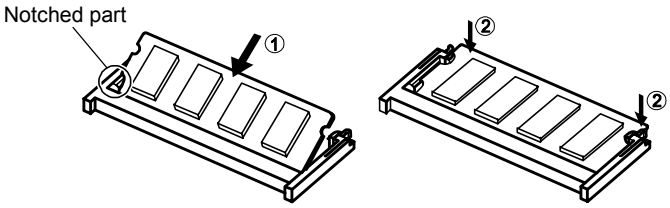


Figure 6-5. Attaching the Memory Module on the Memory Board

9. With the connector face down, insert the board until the end of the board is matched with the two lines on the slot.

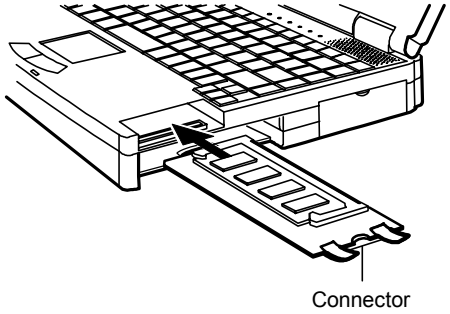


Figure 6-6. Inserting the Memory Module

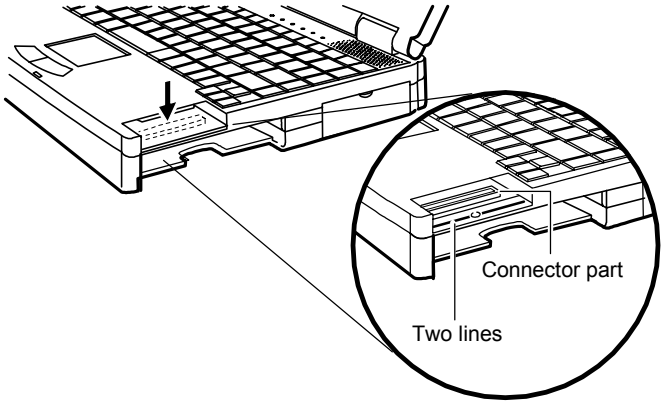


Figure 6-7. Connector Part and Two Lines

10. Insert the connector of the memory board into the female connector of the notebook.
11. Replace the cover, and refit the screw you have removed in the step 4.
12. Insert the right-side bay unit.

CHAPTER 7

Using Passwords

This chapter describes how to set up security to limit access to the notebook.

Passwords

If you set a password, only a person who knows the password can use certain functions of your notebook. The password feature protects your data from unauthorized access and helps prevent computer virus infections. Two types of passwords (the supervisor password and the user password) limit the following access in different levels:

- Starting the System
- Opening the Setup Utility
- Reading from and Writing to Floppy Disks

- *If you lose your password, you will be unable to access the notebook or change the configuration. Make sure to select a password you will never forget, or write it down and protect it in a secure place. Otherwise, you will have to contact your dealer for assistance.*
- *If you input the wrong password three consecutive times, the message "SYSTEM DISABLED'' appears. Turn off the notebook, turn on again, and input the correct password.*

Setting the Supervisor Password

You can set the password in the Security menu of the Setup Utility.

1. Turn on the notebook.
2. When *Press <**F2**> to enter SETUP* is displayed, press **F2**.
3. Select the *Security* menu with the arrow key.
4. Select *Set Supervisor Password* with the arrow key, and press **Enter**.
5. Type your supervisor password, and press **Enter**. The password can be up to seven characters.
6. Type the same password for confirmation, and press **Enter**.
7. Press **Enter** again. The supervisor password is enabled.

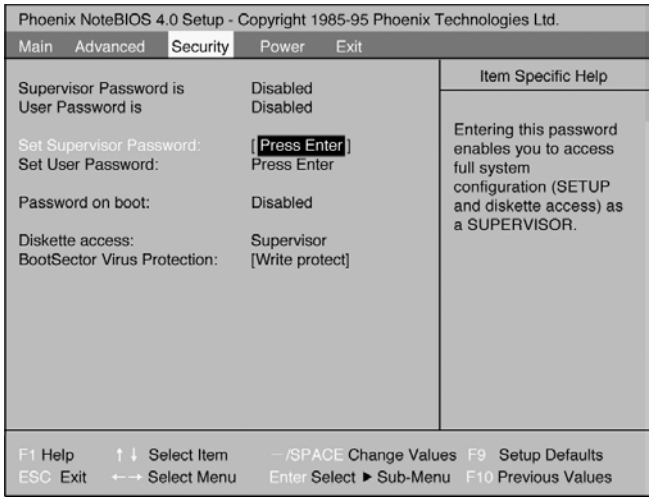


Figure 7-1. Setup Utility Security Configuration Screen

Setting Up the User Password

To set the user password, you have to set the supervisor password first.

1. Open the *Security* menu of the Setup Utility as in the previous subsection.
2. Select *Set User Password* with the arrow key, and press **Enter**.
3. Type your user password, and press **Enter**. The password can be up to seven characters.
4. Type the same password for confirmation, and press **Enter**.
5. Press **Enter** again. The user password is enabled.

Deleting a Password

1. Open the *Security* menu of the Setup Utility as in the above.
2. Select *Set Supervisor Password* or *Set User Password*, then press **Enter**.
3. Do not enter password, but press **Enter** three times. The password is disabled.

If you delete the supervisor password, the user password is automatically deleted.

Security Slot

You can prevent theft by using a security cable and the security slot on the rear side of your notebook.

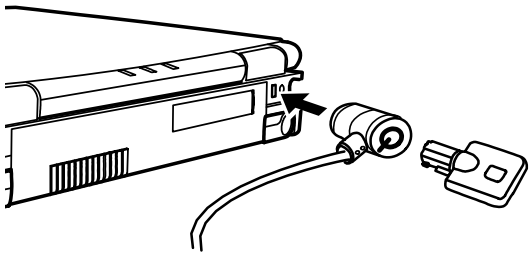


Figure 7-2. Security Slot

CHAPTER 8

Setup Utility

This chapter describes how to run the Setup Utility to change settings on your notebook.

Running the Setup Utility

With the Setup Utility, you can customize the system configuration information, such as time and date, port assignments, passwords, or power management settings. The information you have specified is saved in a special area called CMOS RAM, and the system reads it every time you turn on the notebook.

Contents of the Setup Utility

The Setup Utility consists of five menu pages, as follows:

- Main: Basic system configuration (time/date, disk drive and memory settings)
- Advanced: Device interface configuration (I/O ports, sound settings)
- Security: Password settings
- Power: Power management (battery saving settings)
- Exit: Exit the Setup Utility

Entering and Exiting the Setup Utility

1. Turn on the notebook.
2. When *Press <F2> to enter SETUP* appears, press **F2** to display the Setup Utility screen.
3. Change the desired settings.
4. Press **Esc** to select the Exit menu.
5. Select one of the following exit method, and press **Enter**.
   - Save Changes & Exit
   - Discard Changes & Exit
   - Get Default Values
   - Load Previous Values
   - Save Changes

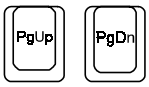
8

Using the Setup Utility

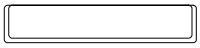
You can use the following keys:

Moves the cursor from one menu to another.

Moves the cursor from one item to another in a menu.



Moves the cursor to the first or last item.



Increases the numeric value or changes to the next value of an item.

Decreases the numeric value or changes to the previous value of an item. If you use the German keyboard, use the **Fn**+**P** keys instead.

Enters the Exit menu.

Replaces the settings on the current menu with their default values (date and time are not changed).

Restores all the values you previously saved (date and time are not changed).

Displays online help for the Setup Utility.

8

Settings That You Can Change

Main menu

In the Main menu of the Setup Utility, you can change the following settings:

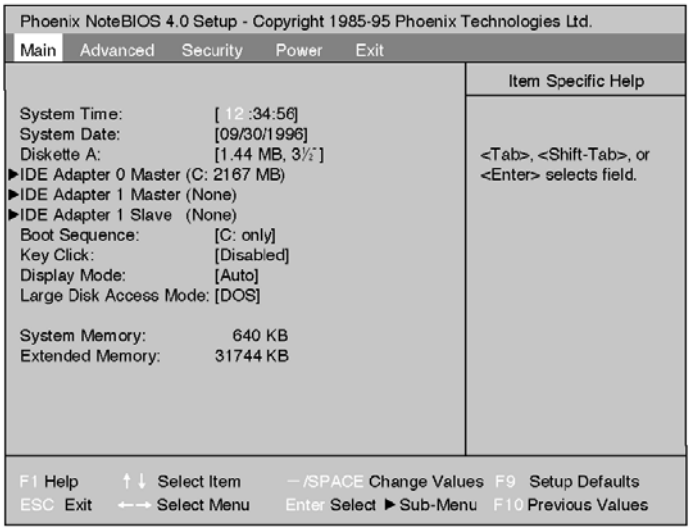


Figure 8-1. Setup Utility Main Configuration Screen

System Time Defines the system time, using the format *hour:minute:second* (24-hour format). Press **Enter** to move the cursor. You can also change the system time in the Windows *Control Panel*.

System Date Defines the system date, using the format *month/day/year*. Press **Enter** to move the cursor. You can also change the system date from the Windows *Control Panel*.

Diskette A Specifies the floppy disk type. It should usually be *1.44MB,3½*".

IDE Adapter 0/1 Master/Slave Specifies the hard disk type built in the notebook. Use as it is in normal use.

Boot Sequence Specifies where the boot program looks for operating system files. When you select *A: then C*:, for example, the system checks the floppy disk drive first, and if no system disk is found in the drive, the system boots from the hard disk drive.

Key Click Turns on/off the sound when you press a key.

Display Mode Specifies on which display the screen appears when the system starts. The default value is *Auto*, in which a CRT monitor gets the priority. If the CRT monitor is not connected to the notebook, the LCD screen works when the system starts. Whichever mode you have selected here, you can change the display with the **Fn + F5** keys after the system starts.

Large Disk Access Mode Normally has to be as default, *DOS*. If installing other operating system such as UNIX, you may have to change the value to *Other*.

System Memory Defines the size of conventional memory for starting MS-DOS. It always shows *640 KB*.

Extended Memory Defines the size of extended memory found by the BIOS during the Power-On Self Test (POST). The notebook automatically updates the value when you enter the Setup Utility after you add an optional memory module.

Advanced menu

In the Advanced menu of the Setup Utility, you can change the following settings:

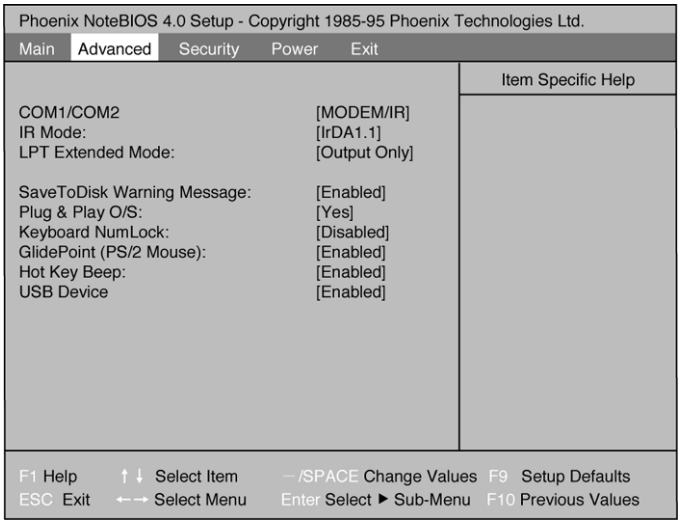


Figure 8-2. Setup Utility Advanced Configuration Screen

COM1/COM2 Specifies the serial communication devices assigned to COM1 and COM2.

IR Mode Specifies the mode of the IR Port. Select *IrDA1.1* in ordinary usage.

LPT Extended Mode Specifies the mode of the printer port among *Output Only*, *Bi-Directional*, *EPP* and *ECP*.

If you set ECP *as LPT Extended Mode, you cannot use IrDA1.1 in the IR Mode.*

SaveToDisk Warning Message Defines whether the warning message appears after the system restarts if there is no suspend-to-disk partition in the hard disk.

Plug & Play O/S Defines whether the operating system has plug & play function. Since Windows 95 supports the function, the default value is *Yes*. If you use MS-DOS, Windows 3.1 OS/2 or UNIX, set it to *No.*

When this item is Yes*, you cannot use a PC card in the MS-DOS mode.*

Keyboard NumLock Defines whether you can use the NumLock keys on the built-in keyboard when you connect an external keyboard.

GlidePoint(PS/2 Mouse) Defines whether you can use GlidePoint and a PS/2 mouse. While you connect a PS/2 mouse, the GlidePoint is automatically disabled. To use a serial mouse, set this item to *Disabled*.

Hot Key Beep Turns on/off the sound when you press a hot key.

USB Device Enables/disable the USB port.

Security menu

In the Security menu of the Setup Utility, you can change the following settings. See also the previous chapter about setting the password.

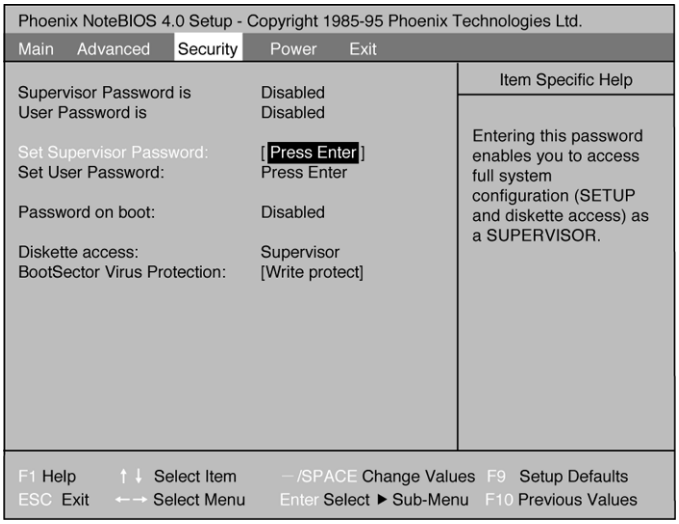


Figure 8-3. Security Menu

Supervisor Password is Defines whether a supervisor password is required. If *Password on boot* is enabled and if this item is enabled, you have to input the supervisor password when the system boots.

User Password is Defines whether a user password is required. If *Password on boot* is enabled and if this item is enabled, you have to input the user password when the system boots.

Set Supervisor Password Defines the supervisor password.

Set User Password Defines the user password.

- *In some settings of the password, you cannot select some items.*
- *You cannot set the user password unless setting the supervisor password.*

If you lose your password, you will be unable to access the notebook or change the configuration. Make sure to select a password you will never forget, or write it down and protect it in a secure place. Otherwise, you will have to contact your dealer for assistance.

Password on boot Defines whether the system requires passwords on boot time. If this item is enabled, you need to input the password to start the operation. If this item is disabled, you can start the operation without any passwords; however, you cannot access the floppy disk drive if *Diskette access* is set to *Supervisor*.

When setting the supervisor password, always enable this item. Otherwise, you cannot operate the system as supervisor.

Diskette access Specifies who can access the floppy disk drive. If the value of this item is Supervisor, only the supervisor can access the floppy disk drive; if it is User, anyone can access the FDD.

BootSector Virus Protection Limits the writing into the boot sector of the hard disk to protect viruses. When changing the partitions of the hard disk or when installing a new operating system, set it to *Normal*.

Power menu

In the Power menu of the Setup Utility, you can change the following settings. See also the Chapter 3 on power management and battery.

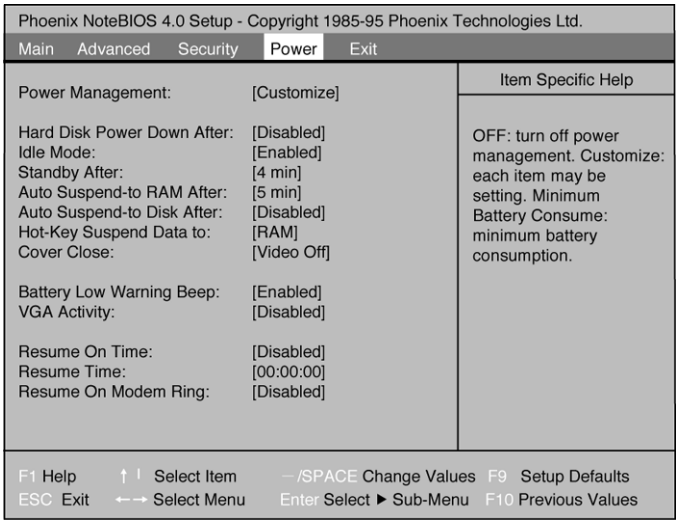


Figure 8-4. Power Menu

Power Management Enables or disables the power management of your notebook, not Windows 95 power management. Specify this item to *Customize* to adjust *Hard Disk Power Down After*, *Idle Mode*, *Standby After*, *Auto Suspend-to-RAM After*, and *Auto Suspend-to-Disk After*. If you set it to *Maximum Battery Life*, the values which limit the battery consumption most are automatically selected.

Hard Disk Power Down After Defines a period of non-access to the hard disk after which the power supply for the hard disk stops automatically.

Idle Mode Enables or disables the idle mode. Your notebook enters the idle mode if you do not use the keyboard, GlidePoint, the mouse, the hard disk or the serial port for about ten seconds.

Standby After Defines the duration before your notebook enters the standby mode if it has no access or operation.

Auto Suspend-to-RAM After Defines the duration before your notebook enters the Suspend to RAM.

Auto Suspend-to-Disk After Defines the duration before your notebook enters the Suspend to Disk.

Hot Key Suspend Data to Defines whether the system enters the Suspend to RAM or Suspend to Disk when you press **Fn**+**F12** or when you close the cover screen. If you do not set the next item, *Cover Close*, to Suspend, however, the system does not enter the suspend mode when you close the screen.

Cover Close Specifies the status when you close the screen cover. If you set it to *Video Off*, the back light of the LCD screen is off. If you set it to *CRT Display*, the display output is switched to the CRT display when you close the screen cover. If you set it to *Suspend*, the system enters the suspend mode.

Battery Low Warning Beep Defines whether to make a warning sound if the battery power is low.

VGA Activity Defines whether the power management works when the screen image has not been changed for the specified time. If you set this item to *Enabled*, the power management does not work when the screen gets even a small change such as the clock proceeding. If you set it to *Disabled*, the power management works even when the screen image gets changed.

Resume On Time Defines whether the system resumes from the Suspend to RAM at the time specified in the item below.

Resume Time Defines the time when the system resumes from the Suspend to RAM.

Resume On Modem Ring Defines whether the system resumes from the Suspend to RAM when the modem receives a call.

This item may not be effective to some modems.

Exit menu

In the Exit menu of the Setup Utility, you can select one of the following items.

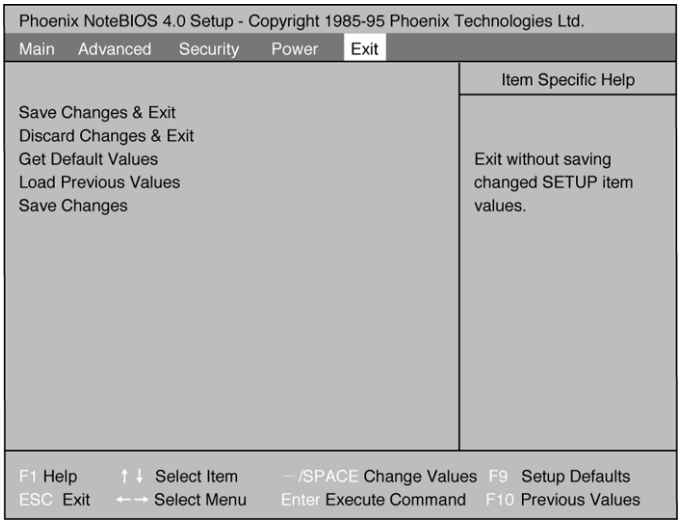


Figure 8-5. Exit Menu

Save Changes & Exit Saves the settings you have changed and exits the Setup Utility.

Discard Changes & Exit Exits the Setup Utility without saving the settings you have changed.

Get Default Values Returns the values of all items to the default. To exit, select one of the above items.

Load Previous Values Returns the values of all items to the value you have saved last time.

Save Changes Saves the settings you have changed.

Troubleshooting

This chapter describes how to troubleshoot notebook problems.

Common Problems

Problems with your notebook can be caused by something as minor as an unplugged power cord or as major as a damaged hard disk drive. The information in this troubleshooting section is designed to help you find and solve minor problems. If you still have a problem after trying all the suggested remedies in this chapter, contact your dealer.

The problems that you might encounter can be divided into two basic categories: hardware and software. Hardware problems can be further divided into being of an electrical or a mechanical nature. You will know you have a hardware problem if, for example, the screen is blank, the notebook cannot recognize the disk drives, or you get an error message during the Power-On Self Test (POST).

Software problems can occur at several levels. Both your operating system and your software application programs are capable of generating errors and error messages. If you encounter a software error, try to determine if the error message is from your operating system or from an application program, and refer to the appropriate manual for possible remedies.

You can also refer to the Windows 95 manual or Windows Help program to solve the problem. To access the Help program, select Help from the Start menu. It also gives you Troubleshooting tips and an Index.

Successful troubleshooting is the result of careful observation, deductive reasoning, and an organized approach to solving the problem. If you encounter a problem, begin by performing a careful visual inspection. Check the exterior of the notebook first. If no lights are displayed, check the battery charge or power outlet, the plug and power cord, and any power switches that may affect your notebook. If the notebook has been connected to any peripheral devices, look for loose or disconnected cables. You may also need to check the fuses and breakers in your electric box.

A few common problems and suggested solutions are presented in the examples which follow.

Question: Why does the power switch not function?

- Make sure the AC power cable is correctly connected to a live wall outlet.
- The power switch does not accept just a light touch. Press the switch firmly.
- If the notebook is operating with a battery, the battery may be discharged. Connect the notebook to a wall outlet.

Question: Why does Windows not start?

- Check whether the floppy disk drive contains a disk without the operating system. Remove the floppy disk from the drive, and press any key.
- When the message "Starting Windows 95 ..." appears, press **F8** to open the Windows 95 Startup Menu. The menu provides different ways to start the system. See also *Introducing Microsoft Windows 95* and *Windows Help*.
- Use a diagnostics software available commercially to check the notebook. If you need to re-initialize your hard disk, refer to the Re-installation Instructions. It is strongly recommended to backup your data before you proceed the re-installation.

Question: Why is the screen blank?

- Press the **Spacebar** to see if any power management feature has blanked the screen to save power.
- See the AC power indicator to check whether the notebook is powered.
- If you are using a battery pack, make sure it is installed correctly and has a charge remaining.
- Make sure the LCD screen is selected as the display by pressing **Fn+F5**.
- Check the brightness controls for your display by pressing **Fn+F6** or **Fn+F7**.
- Check whether the back light is on by pressing **Fn+F11**.
- Turn the notebook off, wait more than ten seconds, and turn the notebook back on.

Question: Why does the keyboard or the GlidePoint not function?

- Execute the software reset by pressing **Ctrl+Alt+Delete**.

- If you cannot do the software reset, turn the notebook off, wait more than ten seconds, and turn the notebook back on.

Question: Why is the battery discharged so quickly?

- Initialize the battery pack.

Question: Why can I not read or write data in the hard disk?

- Confirm the drive name and the file name are correct.
- Confirm the hard disk has sufficient free space.
- The hard disk of your notebook is formatted with FAT32. You cannot read or write data in other operating systems, such as MS-DOS, which are not FAT 32 compatible. Applications that are not compliant with FAT32 may not work normally.

Question: Why can I not use a floppy disk?

- The floppy disk may not be formatted or could be corrupted.
- If you cannot write to a floppy disk, the disk may be write-protected. Eject the disk and ensure that the write-protect tab covers the detection hole.
- If you cannot write to a floppy disk, the disk may be full. Use another disk.
- Check whether the item of Diskette A in the Main menu of the Setup Utility is set to 1.44MB, 3 1/2.
- Check whether the item of *Diskette access* in the *Security* Menu is not set to *Supervisor*.

Question: Why can I not read data from a compact disc?

- Confirm the CD is inserted correctly.
- Confirm the drive name and the file name are correct.
- Confirm the CD is not stained or scratched.

Question: Why can I not play files from a compact disc?

- If you are using Sharp Player, confirm the CD or files are supported.

Question: Why does the CD-ROM drive not open?

- Confirm the notebook is turned on.
- After turning off the notebook, insert a fine rod into the CD tray ejecting hole.

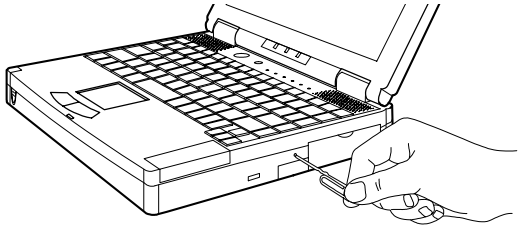


Figure T-1. Inserting a Fine Rod

Question: Why do I get a non-system disk or disk error message?

- You may have inserted a non-bootable disk in Drive A: (either a defective disk or one without an installed operating system). Remove the disk.
- Check the Setup Utility to ensure that the drive types are correctly identified.
- If this message is issued when you attempt to boot from your hard disk drive, insert a bootable disk and check the integrity of your hard disk drive.

Question: Why is the date and/or time incorrect?

- Correct the date and time using the Windows Control Panel or the Setup Utility.
- If the date and time are still incorrect when you reboot, contact your dealer to change the CMOS backup battery on the system board.

Question: Why do expansion or peripheral devices not function?

- Confirm they are correctly connected to your notebook.
- Confirm drivers necessary for operating the devices are installed.
- There may not be a free IRQ. Refer to the section of System Mapping in order to release an IRQ for a built-in device.

Question: Why can I not print out?

- Check whether the printer is powered on.

- Check whether the notebook and the printer are connected correctly.
- Check whether the printer has enough paper.
- From the *Start* menu, select Settings - Printers to confirm your printer is installed here. If not, click *Add Printer* to install your printer.
- See also the Windows Help.

Question: Why does the PC card not function when I use the COM interface?

- The COM3 or COM4 port may conflict with the COM1 or COM2 port used by another device. You may be able to resolve the conflict by changing the COM ports settings in the *Advanced* menu of the Setup Utility. If your PC Card uses COM3, disable the COM1 port; if your PC Card uses COM4, disable the COM2 port.

Question: Why can I not record sound?

- Check the Volume in the *Multimedia Properties* dialog box.
- Confirm the Preferred device for Playback and Recording are identified in the *Multimedia Properties* dialog box

Question: Why can I not produce sound?

- Confirm the sound driver is installed. From the Windows Control Panel, click *System, Device Manager* tab, then *Sound, video and game controllers*. Verify the *Audio Driver* is installed. If not, install the driver from the *Add New Hardware applet* in the *Control* Panel.
- Check the Windows volume control and mute button. Click the speaker symbol to the right of the clock on the bottom left of the taskbar to open *the Volume Control* window.

Question: Why does the CRT monitor display nothing?

- Confirm the monitor is turned on.

- Confirm the monitor is connected correctly.
- Make sure the CRT monitor is selected as the display by pressing **Fn+F5**.
- Make sure the value of the Desktop area in the *Display Properties* dialog box is lower than the resolution of the CRT monitor.

Question: Why is the CRT display corrupted?

- Place the monitor away from electric devices making strong magnetic field such as a TV set or radio.
- Do not share an outlet with a TV set or radio.

Question: Why does the device connected to the RS-232C serial port not function?

- Confirm they are correctly connected to your notebook.
- Confirm the application program is compliant with the RS-232C standard interface.
- Confirm COM1 or COM2 is set to RS-232 in the *Advanced* menu of the Setup Utility.

Question: Why does the GlidePoint not function correctly?

- Confirm the surface of the GlidePoint is not wet.
- Confirm the item of the GlidePoint in the *Advanced* menu of the Setup Utility is *Enabled*.
- If a PS/2 mouse is connected to the notebook, the GlidePoint does not work. Remove the PS/2 mouse.

Question: Why does the mouse not function correctly?

- If you are using a PS/2 mouse, confirm the item of GlidePoint in the Setup Utility is set to *Enabled*. If you are using a serial mouse, confirm the item of GlidePoint in the Setup Utility is set to *Disabled*.

- Confirm the item of the GlidePoint in the *Advanced* menu of the Setup Utility is *Enabled*.
- If a PS/2 mouse is connected to the notebook, the GlidePoint does not work. Remove the PS/2 mouse.

Question: Why can I not communicate through the built-in IR port?

- Confirm the IR port of your notebook is lined up with the IR port of the other device. These ports should be no more than 30 inches (80 cm) apart without any obstacles.
- Confirm the COM2 is set to IR in the *Advanced* menu of the Setup Utility.
- Turn off the power management both in the Windows and the Setup Utility.
- Select the *IrDA* mode in the *IR Type*.

Question: Why can I not communicate through the built-in modem? (U.S. and Canada only)

- Confirm the telephone line is properly connected to the modem jack.
- Confirm the *COM1* is set to *Modem* in the *Advanced* menu of the Setup Utility.
- Turn off the power management both in the Windows and the Setup Utility

Question: Why does the screen saver move extremely slowly?

- Your notebook is in the idle mode. You can disable the idle mode in the Setup Utility, if necessary.

Question: Why does CardBus not function?

- Install CardWorks stored at R:\PCCARD95 in the Backup CD-ROM. CardBus may function.

Question: Why does the "Autotyping" message appear when I start the notebook?

- You may have installed or uninstalled the floppy disk drive without changing the settings. To change the setteings, see page 2-9.

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